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=> D HIS FUL L108-

     FILE 'REGISTRY' ENTERED AT 12:00:17 ON 27 DEC 2007
L108            STR
L110        101 SEA SSS FUL L108

     FILE 'HCAPLUS' ENTERED AT 12:08:13 ON 27 DEC 2007
L111        551 SEA ABB=ON  PLU=ON  L110
L112         77 SEA ABB=ON  PLU=ON  L111(L)(?MEDIC? OR ?THERAP? OR ?DRUG? OR
                ?PHARMA?)
L113        259 SEA ABB=ON  PLU=ON  L111 AND (AY<2003 OR PY<2003 OR PRY<2003
                OR PD=<JANUARY 27, 2002)
L114         28 SEA ABB=ON  PLU=ON  L113 AND L112
                D STAT QUE L114
                D IBIB ABS HITSTR L114 1-28
L115         36 SEA ABB=ON  PLU=ON  L111 AND ?STERO?
L116         16 SEA ABB=ON  PLU=ON  L115 AND (AY<2003 OR PY<2003 OR PRY<2003
                OR PD=<JANUARY 27, 2002)
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                D IBIB ABS HITSTR L117 1-12
L119         11 SEA ABB=ON  PLU=ON  L111 AND ?ISOMER?
L121          0 SEA ABB=ON  PLU=ON  L120 NOT (L114 OR L119)
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                "DISEASE (L) AUTOIMMUNE"/CV OR "AUTOIMMUNE DISEASES"/CV OR
                "IDIOPATHIC AUTOIMMUNE DISEASE"/CV OR "SPONTANEOUS AUTOIMMUNE
                DISEASE"/CV OR "ANTIPHOSPHOLIPID SYNDROME"/CV OR "AUTOIMMUNE
                HEPATITIS"/CV OR "MULTIPLE SCLEROSIS"/CV OR "RHEUMATOID
                ARTHRITIS"/CV OR "SJOGREN SYNDROME"/CV) OR ?AUTOIMMU? OR
                ?ARTHRIT? OR LUPUS OR ?NEPHRITI? OR ?DIABETE? OR AIDS OR
                ?IMMUNODEF? OR ?HEPATIT? OR ?ALLERG? OR HEART OR CARDIO? OR
                TRANSPLANT OR REJECT? OR ?FERTIL? OR ?REPRODUC?)
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                D STAT QUE L124
                D IBIB ABS HITSTR L124 1-24
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                YUAN CHAO/AU OR "LI YUANCHAO"/AU
L126        268 SEA ABB=ON  PLU=ON  ZUO J/AU OR ZUO J P/AU OR ZUO JIAN/AU OR
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L127       1797 SEA ABB=ON  PLU=ON  "ZHANG FAN"/AU OR  ZHANG FAN ?/AU OR ZHANG
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                OR DING JIAN ?/AU
L130         54 SEA ABB=ON  PLU=ON  L125 AND (L126 OR L127 OR L128 OR L129)
L131         19 SEA ABB=ON  PLU=ON  L126 AND (L127 OR L128 OR L129)
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                (L114 OR L117 OR L124 OR L119)
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FILE HOME

FILE REGISTRY
Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 26 DEC 2007 HIGHEST RN 959588-76-2
DICTIONARY FILE UPDATES: 26 DEC 2007 HIGHEST RN 959588-76-2

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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

FILE HCAPLUS

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FILE COVERS 1907 - 27 Dec 2007 VOL 147 ISS 26
FILE LAST UPDATED: 26 Dec 2007 (20071226/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

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=> FIL HCAPLUS
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FILE COVERS 1907 - 27 Dec 2007 VOL 147 ISS 26
FILE LAST UPDATED: 26 Dec 2007 (20071226/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

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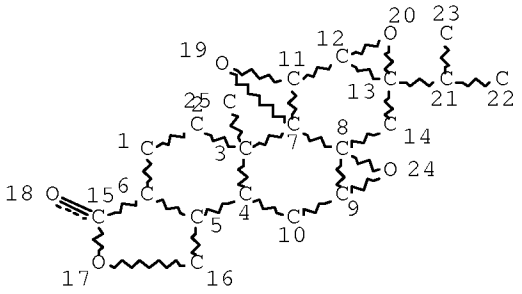
=>

=> D STAT QUE L114
L108   STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 25

STEREO ATTRIBUTES: NONE
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L111   551 SEA FILE=HCAPLUS ABB=ON PLU=ON L110
L112   77 SEA FILE=HCAPLUS ABB=ON PLU=ON L111(L)(?MEDIC? OR ?THERAP?
                OR ?DRUG? OR ?PHARMA?)
L113   259 SEA FILE=HCAPLUS ABB=ON PLU=ON L111 AND (AY<2003 OR PY<2003
                OR PRY<2003 OR PD=<JANUARY 27, 2002)
L114   28 SEA FILE=HCAPLUS ABB=ON PLU=ON L113 AND L112

=>
=>

=> D IBIB ABS HITSTR L114 1-28

L114 ANSWER 1 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:1004423 HCAPLUS Full-text
DOCUMENT NUMBER: 143:312080
TITLE: Artificial blood vessel for delivering therapeutic
                         agents
INVENTOR(S):   Bhat, Vinayak D.; Yan, John

PATENT ASSIGNEE(S): Avantec Vascular Corp., USA
SOURCE: U.S. Pat. Appl. Publ., 52 pp., Cont.-in-part of U.S. Ser. No. 206,807.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005203612	A1	20050915	US 2003-607836	20030627 <--
US 2002082677	A1	20020627	US 2001-782804	20010213 <--
US 7018405	B2	20060328		
US 2002114823	A1	20020822	US 2001-782927	20010213 <--
US 6471980	B2	20021029		
US 2002082679	A1	20020627	US 2001-2595	20011101 <--
US 2003083646	A1	20030501	US 2001-17500	20011214 <--
US 7077859	B2	20060718		
US 2003050692	A1	20030313	US 2002-206807	20020725 <--
US 2003017190	A1	20030123	US 2002-242334	20020911 <--
US 6858221	B2	20050222		
WO 2004010900	A1	20040205	WO 2003-US20492	20030627 <--
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003261100	A1	20040216	AU 2003-261100	20030627 <--
JP 2005533604	T	20051110	JP 2004-524538	20030627 <--
US 2007142898	A1	20070621	US 2007-680439	20070228 <--

PRIORITY APPLN. INFO.:			
US 2000-258024P	P	20001222	<--
US 2001-782804	A2	20010213	<--
US 2001-782927	A2	20010213	<--
US 2001-783253	A2	20010213	<--
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US 2001-308381P	P	20010726	<--
US 2001-2595	A2	20011101	<--
US 2001-17500	A2	20011214	<--
US 2002-347473P	P	20020110	<--
US 2002-355317P	P	20020207	<--
US 2002-370703P	P	20020406	<--
US 2002-206807	A2	20020725	<--
US 2002-404624P	P	20020819	<--
US 2003-454146P	P	20030311	
US 2003-472536P	P	20030521	
WO 2003-US20492	W	20030627	

AB Devices and methods for reducing, inhibiting, or treating restenosis and hyperplasia after intravascular intervention are provided. In particular, the present invention provides luminal prostheses which allow for sustained or controlled release of at least one therapeutic capable agent with increased efficacy to selected locations within a patient's vasculature to reduce restenosis. An intraluminal prosthesis may comprise an expandable structure

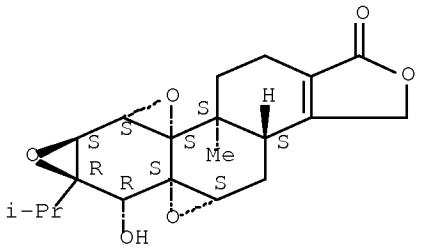
and a source adjacent the expandable structure for releasing the therapeutic capable agent into a body lumen to reduce smooth muscle cell proliferation.

IT 38748-32-2, Triptolide
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(artificial blood vessel for delivering therapeutic agents)

RN 38748-32-2 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L114 ANSWER 2 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:972045 HCAPLUS Full-text
DOCUMENT NUMBER: 140:16834
TITLE: Preparation of triptolide derivatives for the modulation of apoptosis and immunosuppression
INVENTOR(S): Dai, Dongcheng; Musser, John H.; Lennox, Edwin S.
PATENT ASSIGNEE(S): Pharmagenesis, Inc., USA
SOURCE: PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003101951	A2	20031211	WO 2003-US17177	20030529 <--
WO 2003101951	A3	20040506		
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2485794	A1	20031211	CA 2003-2485794	20030529 <--
AU 2003243351	A1	20031219	AU 2003-243351	20030529 <--
EP 1511478	A2	20050309	EP 2003-756318	20030529 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005528442	T	20050922	JP 2004-509645	20030529 <--

US 2004235943 A1 20041125 US 2004-478777 20040624 <--
PRIORITY APPLN. INFO.: US 2002-384480P P 20020531 <--
WO 2003-US17177 W 20030529
OTHER SOURCE(S): MARPAT 140:16834
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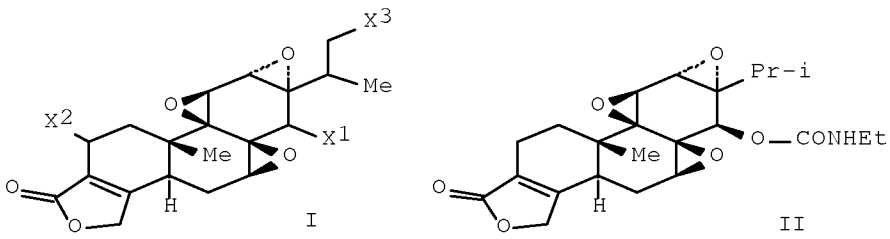


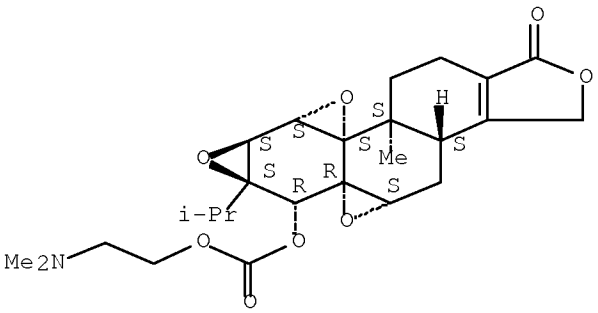
AB Variously substituted carbonate and carbamate derivs. of triptolide of formula I [X1 = OH, OCOR, etc.; X2, X3 = H, (substituted) OH; R = alkoxy, aryloxy, (substituted) amino, etc.] are prepared which have good aqueous solubility and convert to biol. active compds. in vivo, at a rate which can be modulated by varying the substitution on the prodrug. The prodrugs are useful as immunosuppressive, anti-inflammatory and anticancer agents. Thus, II was prepared from triptolide and Et isocyanate. The dose-response data for II show it to have equal apoptotic activity to triptolide at 10-fold higher concentration

IT 629617-20-5P, PG 682 629617-23-8P, PG 687
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of triptolide derivs. as prodrugs useful as immunosuppressive, anti-inflammatory and anticancer agents)

RN 629617-20-5 HCAPLUS

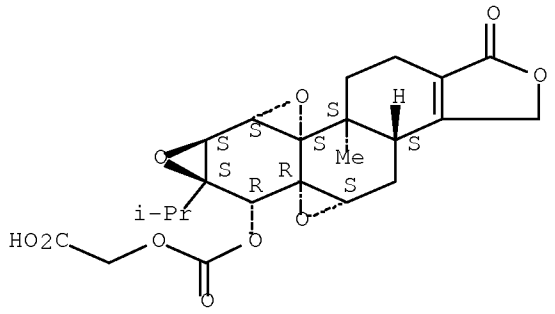
CN Carbonic acid, 2-(dimethylamino)ethyl (3bS,4aS,5aR,6R,6aS,7aS,7bS,8aS,8bS)-1,3,3b,4,4a,6,6a,7a,7b,8b,9,10-dodecahydro-8b-methyl-6a-(1-methylethyl)-1-oxotrisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-6-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 629617-23-8 HCAPLUS
CN Acetic acid, [[[[(3bS,4aS,5aR,6R,6aS,7aS,7bS,8aS,8bS)-1,3,3b,4,4a,6,6a,7a,7b,8b,9,10-dodecahydro-8b-methyl-6a-(1-methylethyl)-1-oxotrisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-6-yl]oxy]carbonyl]oxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



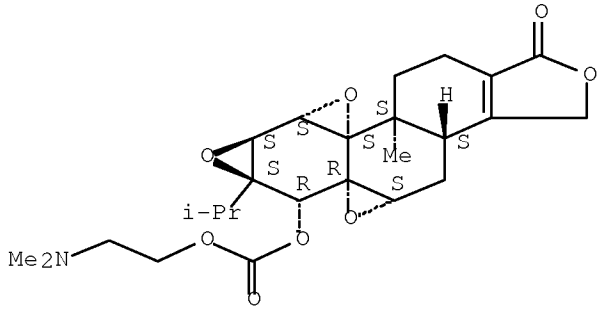
IT 629617-21-6P 629617-22-7P 629617-24-9P
630092-99-8P, PG 666 630093-00-4P, PG 671
630093-01-5P, PG 688 630093-02-6P, PG 674
630093-03-7P, PG 676 630093-04-8P, PG 679
630093-05-9P, PG 681 630093-06-0P, PG 680
630093-07-1P, PG 695 630093-08-2P, PG 672
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of triptolide derivs. as prodrugs useful as immunosuppressive, anti-inflammatory and anticancer agents)

RN 629617-21-6 HCAPLUS
CN Carbonic acid, 2-(dimethylamino)ethyl (3bS,4aS,5aR,6R,6aS,7aS,7bS,8aS,8bS)-1,3,3b,4,4a,6,6a,7a,7b,8b,9,10-dodecahydro-8b-methyl-6a-(1-methylethyl)-1-oxotrisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-6-yl ester, 4-methylbenzenesulfonate (9CI) (CA INDEX NAME)

CM 1

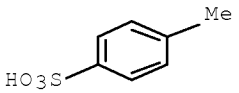
CRN 629617-20-5
CMF C25 H33 N O8

Absolute stereochemistry.



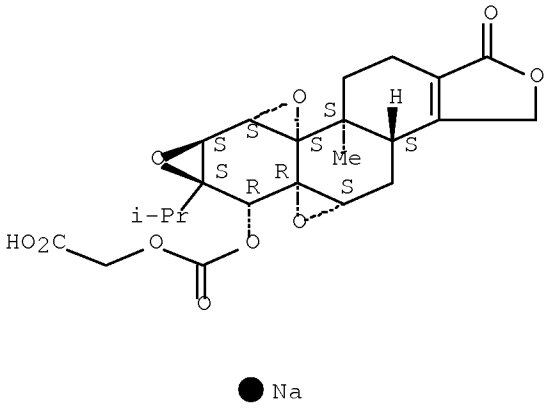
CM 2

CRN 104-15-4
CMF C7 H8 O3 S



RN 629617-22-7 HCAPLUS
CN Acetic acid, [[[[(3bS,4aS,5aR,6R,6aS,7aS,7bS,8aS,8bS)-1,3,3b,4,4a,6,6a,7a,7b,8b,9,10-dodecahydro-8b-methyl-6a-(1-methylethyl)-1-oxotrisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-6-yl]oxy]carbonyl]oxy]-, sodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

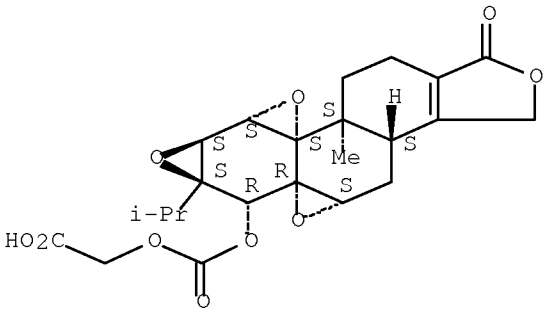


RN 629617-24-9 HCAPLUS
CN Acetic acid, [[[[(3bS,4aS,5aR,6R,6aS,7aS,7bS,8aS,8bS)-1,3,3b,4,4a,6,6a,7a,7b,8b,9,10-dodecahydro-8b-methyl-6a-(1-methylethyl)-1-oxotrisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-6-yl]oxy]carbonyl]oxy]-, compd. with 2-amino-2-(hydroxymethyl)-1,3-propanediol (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 629617-23-8
CMF C23 H26 O10

Absolute stereochemistry.



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CRN 77-86-1
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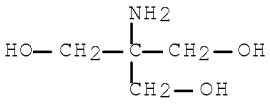

RN 630092-99-8 HCAPLUS
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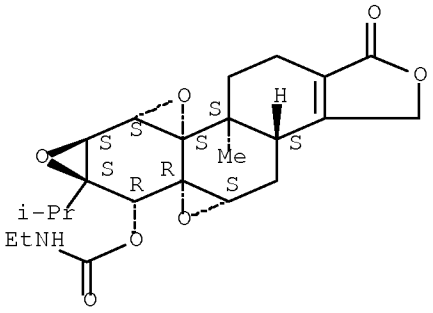
Absolute stereochemistry.



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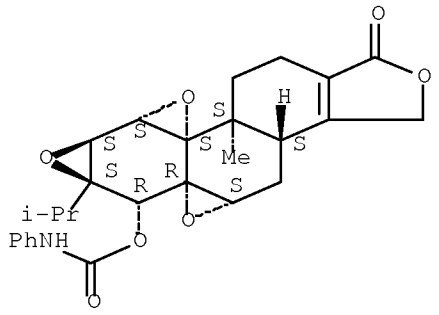
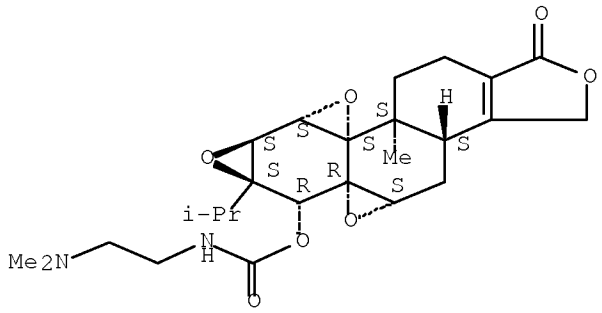
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-8b-methyl-6a-(1-methylethyl)-6-[[(phenylamino)carbonyl]oxy]-, (3bS,4aS,5aR,6R,6aS,7aS,7bS,8aS,8bS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



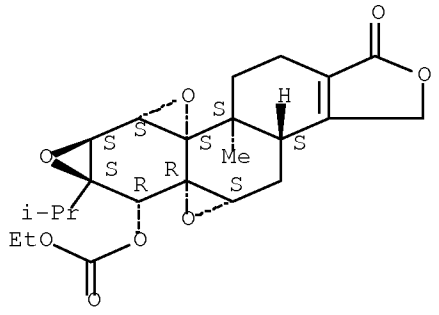
RN 630093-01-5 HCAPLUS
CN Carbamic acid, [2-(dimethylamino)ethyl]-, (3bS,4aS,5aR,6R,6aS,7aS,7bS,8aS,8bS)-1,3,3b,4,4a,6,6a,7a,7b,8b,9,10-dodecahydro-8b-methyl-6a-(1-methylethyl)-1-oxotrisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-6-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 630093-02-6 HCAPLUS
CN Carbonic acid, (3bS,4aS,5aR,6R,6aS,7aS,7bS,8aS,8bS)-1,3,3b,4,4a,6,6a,7a,7b,8b,9,10-dodecahydro-8b-methyl-6a-(1-methylethyl)-1-oxotrisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-6-yl ethyl ester (9CI) (CA INDEX NAME)

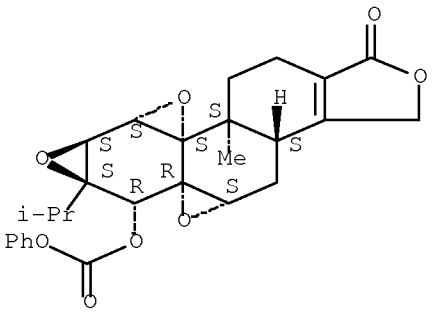
Absolute stereochemistry.



RN 630093-03-7 HCAPLUS

CN Carbonic acid, (3bS,4aS,5aR,6R,6aS,7aS,7bS,8aS,8bS)-1,3,3b,4,4a,6,6a,7a,7b,8b,9,10-dodecahydro-8b-methyl-6a-(1-methylethyl)-1-oxotrisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-6-yl phenyl ester (9CI) (CA INDEX NAME)

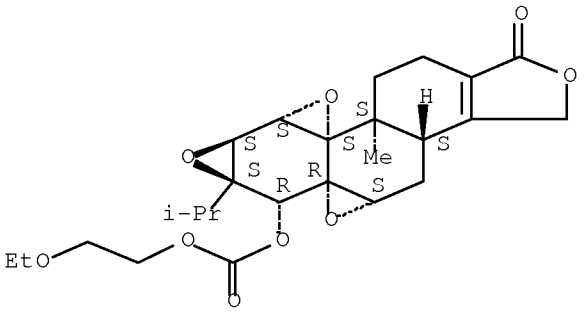
Absolute stereochemistry.



RN 630093-04-8 HCAPLUS

CN Carbonic acid, (3bS,4aS,5aR,6R,6aS,7aS,7bS,8aS,8bS)-1,3,3b,4,4a,6,6a,7a,7b,8b,9,10-dodecahydro-8b-methyl-6a-(1-methylethyl)-1-oxotrisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-6-yl 2-ethoxyethyl ester (9CI) (CA INDEX NAME)

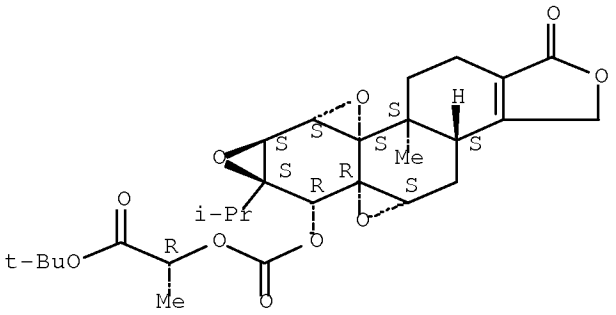
Absolute stereochemistry.



RN 630093-05-9 HCAPLUS

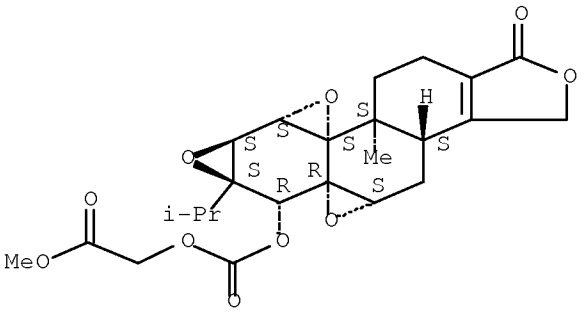
CN Propanoic acid, 2-[[[[(3bS,4aS,5aR,6R,6aS,7aS,7bS,8aS,8bS)-1,3,3b,4,4a,6,6a,7a,7b,8b,9,10-dodecahydro-8b-methyl-6a-(1-methylethyl)-1-oxotrisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-6-yl]oxy]carbonyl]oxy]-, 1,1-dimethylethyl ester, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



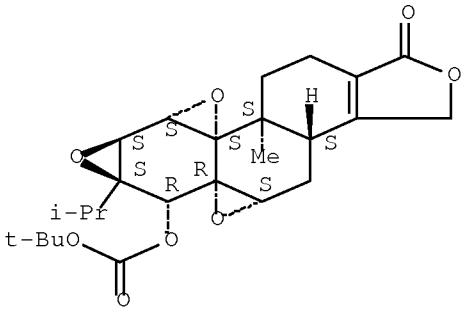
RN 630093-06-0 HCAPLUS
CN Acetic acid, [[[[(3bS,4aS,5aR,6R,6aS,7aS,7bS,8aS,8bS)-1,3,3b,4,4a,6,6a,7a,7b,8b,9,10-dodecahydro-8b-methyl-6a-(1-methylethyl)-1-oxotrisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-6-yl]oxy]carbonyl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 630093-07-1 HCAPLUS
CN Carbonic acid, 1,1-dimethylethyl (3bS,4aS,5aR,6R,6aS,7aS,7bS,8aS,8bS)-1,3,3b,4,4a,6,6a,7a,7b,8b,9,10-dodecahydro-8b-methyl-6a-(1-methylethyl)-1-oxotrisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-6-yl ester (9CI) (CA INDEX NAME)

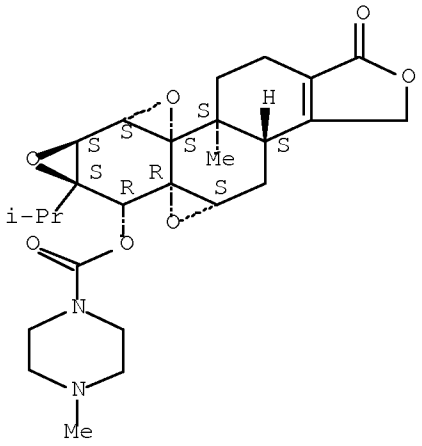
Absolute stereochemistry.



RN 630093-08-2 HCAPLUS

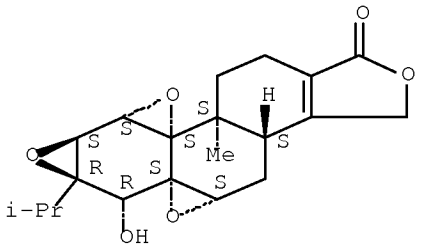
CN 1-Piperazinecarboxylic acid, 4-methyl-, (3bS,4aS,5aR,6R,6aS,7aS,7bS,8aS,8bS)-1,3,3b,4,4a,6,6a,7a,7b,8b,9,10-dodecahydro-8b-methyl-6a-(1-methylethyl)-1-oxotrisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-6-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 38748-32-2, Triptolide
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of triptolide derivs. as prodrugs useful as immunosuppressive, anti-inflammatory and anticancer agents)
RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L114 ANSWER 3 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:913055 HCAPLUS Full-text
DOCUMENT NUMBER: 139:399770
TITLE: Medical goods comprising heparin or chitosan-based hemocompatible coating
INVENTOR(S): Horres, Roland; Linssen, Marita Katharina; Hoffmann, Michael; Faust, Volker; Hoffmann, Erika; Di Biase, Donato
PATENT ASSIGNEE(S): Hemoteq G.m.b.H., Germany
SOURCE: PCT Int. Appl., 93 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003094990	A1	20031120	WO 2003-DE1253	20030415 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10221055	A1	20031127	DE 2002-10221055	20020510 <--
DE 10221055	B4	20071025		
DE 10261986	A1	20040318	DE 2002-10261986	20020510 <--
AU 2003240391	A1	20031111	AU 2003-240391	20030415 <--
AU 2003240391	B2	20070517		
CA 2484269	A1	20031120	CA 2003-2484269	20030415 <--
CN 1543362	A	20041103	CN 2003-800770	20030415 <--
EP 1501565	A1	20050202	EP 2003-729829	20030415 <--
EP 1501565	B1	20061102		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003011446	A	20050315	BR 2003-11446	20030415 <--
CN 1665554	A	20050907	CN 2003-815926	20030415 <--
JP 2005534724	T	20051117	JP 2004-503070	20030415 <--
AT 344064	T	20061115	AT 2003-729829	20030415 <--
ES 2276065	T3	20070616	ES 2003-3729829	20030415 <--
NZ 536331	A	20070831	NZ 2003-536331	20030415 <--
IN 2004MN00606	A	20050218	IN 2004-MN606	20041028 <--
ZA 2004008791	A	20050527	ZA 2004-8791	20041028 <--
ZA 2004008757	A	20050531	ZA 2004-8757	20041028 <--
US 2005176678	A1	20050811	US 2004-513982	20041108 <--
MX 2004PA11112	A	20050714	MX 2004-PA11112	20041109 <--
IN 2005MN01451	A	20070706	IN 2005-MN1451	20051230 <--

PRIORITY APPLN. INFO.:

US 2002-378676P	P	20020509	<--
DE 2002-10221055	A	20020510	<--
WO 2003-DE1253	W	20030415	
IN 2004-MN606	A3	20041028	

AB The invention relates to oligo- and polysaccharides containing the sugar structural element N-acylglucosamine or N-acylgalactosamine, in addition to the use thereof for producing hemocompatible surfaces and to methods for coating surfaces in a hemocompatible manner with said oligo- and polysaccharides, which constitute the common biosynthetic precursor substances of heparin, heparan sulfates and chitosan. The invention also relates to methods for producing the oligo- and/or polysaccharides, in addition to diverse application options involving hemocompatible surfaces. The invention specifically relates to the use of the oligo- and/or polysaccharides on stents involving at least one hemocompatible coating that has been applied according to the invention and that contains an anti-proliferative, anti-inflammatory and/or athrombogenic active ingredient, to methods for producing said stents

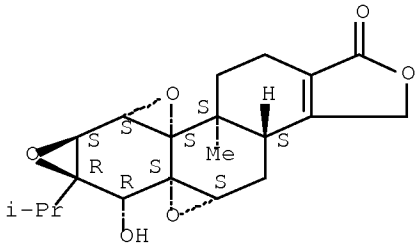
and to the use of the latter for preventing restenosis. Thus desulfated and reacetylated heparin was prepared; the Ac-heparin product was used for coating coronary metal stents. The stents were implanted in swines; after four weeks the animals were anesthetized and the artery segments removed for histomorphometric anal.

IT 38748-32-2, Triptolide
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(medical goods comprising a heparin-based hemocompatible coating)

RN 38748-32-2 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L114 ANSWER 4 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:376692 HCAPLUS Full-text
DOCUMENT NUMBER: 138:390992
TITLE: Intraluminal device with a coating containing a therapeutic agent
INVENTOR(S): Allen-Petit, Sylvie; Dhondt, Maria; De Scheerder, Ivan; Hoolants, Ingrid
PATENT ASSIGNEE(S): DSB Invest Holding SA, Luxembourg
SOURCE: PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003039612	A1	20030515	WO 2002-BE166	20021108 <--

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2466432	A1	20030515	CA 2002-2466432	20021108	<--
CA 2508907	A1	20030515	CA 2002-2508907	20021108	<--
AU 2002339267	A1	20030519	AU 2002-339267	20021108	<--
EP 1463545	A1	20041006	EP 2002-776619	20021108	<--
EP 1463545	B1	20070718			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK					
JP 2005507754	T	20050324	JP 2003-541902	20021108	<--
EP 1576970	A1	20050921	EP 2005-12112	20021108	<--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR, BG, CZ, EE, SK					
AT 367172	T	20070815	AT 2002-776619	20021108	<--
EP 1842567	A2	20071010	EP 2007-112611	20021108	<--
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE, SK, TR					
US 2005158361	A1	20050721	US 2005-494892	20050325	<--
US 2006008501	A1	20060112	US 2005-140811	20050531	<--
JP 2006051369	A	20060223	JP 2005-242578	20050824	<--
PRIORITY APPLN. INFO.:			EP 2001-870237	A 20011108	<--
			EP 2002-447048	A 20020328	<--
			EP 2002-447075	A 20020426	<--
			CA 2002-2466432	A3 20021108	<--
			EP 2002-776619	A3 20021108	<--
			JP 2003-541902	A3 20021108	<--
			WO 2002-BE166	W 20021108	<--
			US 2005-494892	A3 20050325	

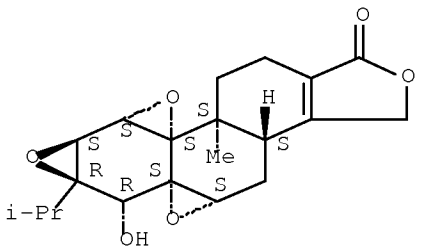
AB The invention relates to an intraluminal device, in particular an intraluminal prosthesis, shunt, catheter or local drug delivery device. In order to increase the bio-compatibility of this device, it is provided with at least one coating. The coating contains a therapeutic agent which is comprised in a matrix that sticks to the intraluminal device. Instead of being formed by a little bio-compatible polymer, the matrix is formed by a bio-compatible oil or fat, such as cod-liver oil or olive oil. Preferably, the bio-compatible oil or fat further comprises α-tocopherol. A stent was coated with cod-liver oil with vitamin E, and implanted in the coronary arteries of pigs. The coated stents showed lower inflammation scores and decreased neointimal hyperplasia.

IT 38748-32-2, Triptolide
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(intraluminal device with oil/fat coating containing therapeutic agent)

RN 38748-32-2 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

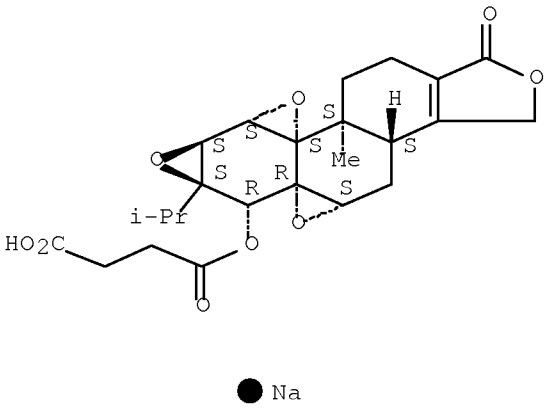
L114 ANSWER 5 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:739048 HCAPLUS Full-text
DOCUMENT NUMBER: 138:395668
TITLE: Immunosuppressive activity of the Chinese medicinal plant Tripterygium wilfordii. III. Suppression of graft-versus-host disease in murine allogeneic bone marrow transplantation by the PG27 extract
AUTHOR(S): Fidler, John M.; Ku, Geoffrey Y.; Piazza, Duane; Xu, Rensheng; Jin, Renling; Chen, Zhenqing
CORPORATE SOURCE: Pharmagenesis, Inc., Palo Alto, CA, 94304., USA
SOURCE: Transplantation (2002), 74(4), 445-457
CODEN: TRPLAU; ISSN: 0041-1337
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English

AB PG27 is an active fraction purified from an extract of a Chinese medicinal plant, Tripterygium wilfordii. We tested PG27 in murine allogeneic bone marrow transplantation (BMT) and investigated the mechanism of graft-vs.-host disease (GVHD) suppression. Recipients in the C57BL/6 → BDF1 murine BMT model received oral or i.p. PG27. Fourteen days of PG27 given orally or i.p. prevented GVHD development and produced extended disease-free survival (more than 300 days) for many animals. PG490-88, a semisynthetic derivative of PG490 (triptolide, present in PG27), was also efficacious. PG27 reduced day 7 splenic allospecific cytotoxic T lymphocyte levels by more than 99% compared with vehicle-treated mice. Compared with normals, spleens from control allogeneic BMT mice displayed significantly reduced mononuclear cell content, an increased percentage of CD8+ cells, fewer CD4+ cells, and more activated ([interleukin-2 receptor+], IL-2R+) CD8+ T cells. PG27 increased mononuclear cell recovery, and significantly reduced the day-14 percentages of CD3+ and IL-2R+ cells in allogeneic BMT mice, producing results similar to those for syngeneic BMT mice. PG27 significantly increased Con A-stimulated in vitro IL-4 production by day-14 splenocytes, with a 7- to 8-fold higher level than that produced by control cells. PG27 treatment for only 14 days prevented GVHD induction and development and produced long-term survival. PG27 largely normalized splenic T lymphocyte subsets, reduced allospecific cytotoxic T lymphocyte activity, and increased IL-4 production capability. PG27 may suppress GVHD by the induction of anergy and a deviation away from a pro-inflammatory phenotype, which could be reflected in the increased potential for IL-4 production

IT 195883-09-1, PG 490-88
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(immunosuppressive activity of the Chinese medicinal plant Tripterygium wilfordii PG27 extract in graft-vs.-host disease in murine allogeneic bone marrow transplantation)

RN 195883-09-1 HCAPLUS
CN Butanedioic acid, 1-[(3bS,4aS,5aR,6R,6aS,7aS,7bS,8aS,8bS)-1,3,3b,4,4a,6,6a,7a,7b,8b,9,10-dodecahydro-8b-methyl-6a-(1-methylethyl)-1-oxotrioxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-6-yl] ester, sodium salt (1:1) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 59 THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L114 ANSWER 6 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:695942 HCAPLUS Full-text
DOCUMENT NUMBER: 137:232787
TITLE: Preparation of triptolide prodrugs having high aqueous solubility
INVENTOR(S): Dai, Dongcheng; Yuan, Hongwei; Musser, John H.
PATENT ASSIGNEE(S): Pharmagenesis, Inc., USA
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002070472	A2	20020912	WO 2002-US6081	20020301 <--
WO 2002070472	A3	20021024		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 6548537	B1	20030415	US 2001-798319	20010302 <--
CA 2448775	A1	20020912	CA 2002-2448775	20020301 <--
AU 2002258426	A1	20020919	AU 2002-258426	20020301 <--
EP 1408957	A2	20040421	EP 2002-728370	20020301 <--
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PRIORITY APPLN. INFO.:

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US 1998-98809P	P	19980902 <--
WO 1999-US20150	A2	19990902 <--
WO 2002-US6081	W	20020301 <--

OTHER SOURCE(S): MARPAT 137:232787

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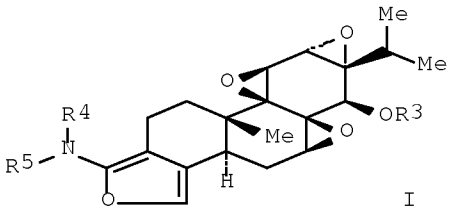

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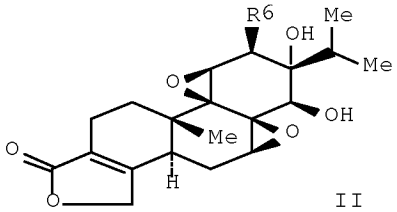


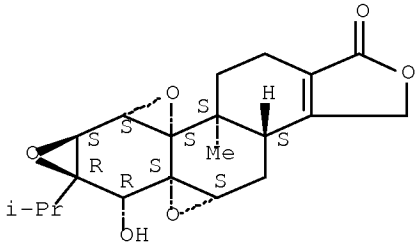
II

AB Triptolide prodrugs, such as I [R3 = H, acyl; R4, R5 = alkyl; NR4R5 = nitrogen bound heterocyclyl, such as 4-morpholinyl] and II [R6 = OCOCF3, OCOCCl3, OC(:NH)CCl3, arylsulfonyloxy, heteroarylsufonyloxy, etc.], were prepared for therapeutic use as immunosuppressive, anti-inflammatory and anticancer agents. These triptolide analogs have improved water solubility, generally lower toxicity and improved pharmacokinetics compared to the parent compound Thus, PG 700 II (R = OSO2C6H4-4-Me) was prepared by reaction of ClSO2C6H4-4-Me with the corresponding triol, PG 673 II (R = OH), using DMAP in pyridine. Pharmaceutical formulations and dosages of the prepared triptolide derivs. were presented.

IT 38748-32-2, PG 490 457914-14-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of triptolide prodrugs having high aqueous solubility for use as immunosuppressive, anti-inflammatory and antitumor agents)

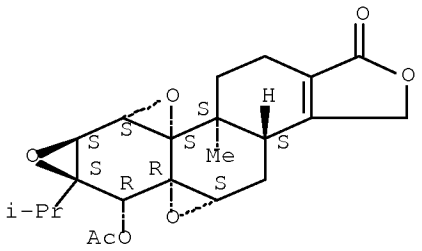
RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



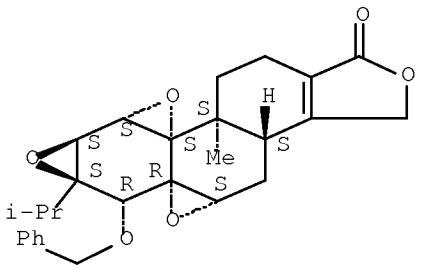
RN 457914-14-6 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 6-(acetyloxy)-3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aR,6R,6aS,7aS,7bS,8aS,8bS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 260246-85-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of triptolide prodrugs having high aqueous solubility for use as immunosuppressive, anti-inflammatory and antitumor agents)
RN 260246-85-3 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-8b-methyl-6a-(1-methylethyl)-6-(phenylmethoxy)-, (3bS,4aS,5aR,6R,6aS,7aS,7bS,8aS,8bS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L114 ANSWER 7 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:556111 HCAPLUS Full-text
DOCUMENT NUMBER: 137:103878
TITLE: Anticancer treatment using triptolide prodrugs
INVENTOR(S): Fidler, John M.; Li, Ke
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 14 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002099051	A1	20020725	US 2001-766156	20010119 <--
US 6620843	B2	20030916		
CA 2435322	A1	20020725	CA 2002-2435322	20020118 <--
WO 2002056835	A2	20020725	WO 2002-US1650	20020118 <--
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            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
            PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
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    JP 2004517882        T     20040617    JP 2002-557346         20020118 <--
PRIORITY APPLN. INFO.:                     US 2001-766156      A  20010119 <--
                                           WO 2002-US1650      W  20020118 <--

OTHER SOURCE(S):         MARPAT 137:103878
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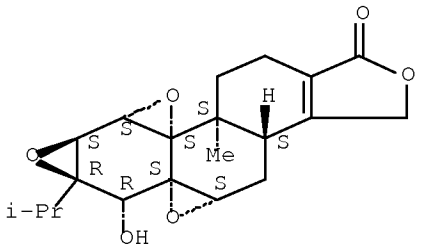
AB Water soluble triptolide prodrugs are used as anticancer agents, and are found to be more effective in vivo, at lower doses, in reducing tumor size than the widely used chemotherapeutic agents 5-fluorouracil and irinotecan. Compds. of the invention include e.g. triptolide 14-succinate.

IT 38748-32-2D, Triptolide, derivs. 195883-09-1
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(triptolide prodrugs for anticancer treatment)

RN 38748-32-2 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

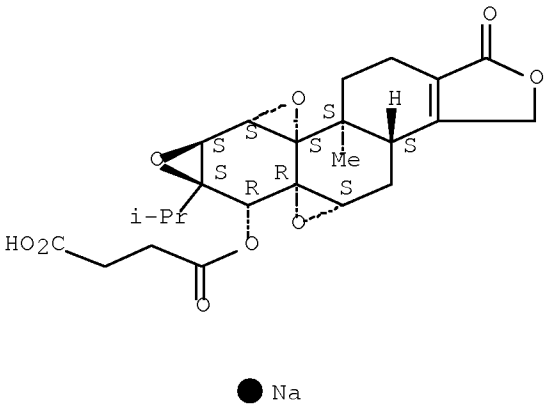
Absolute stereochemistry. Rotation (-).



RN 195883-09-1 HCAPLUS

CN Butanedioic acid, 1-[(3bS,4aS,5aR,6R,6aS,7aS,7bS,8aS,8bS)-1,3,3b,4,4a,6,6a,7a,7b,8b,9,10-dodecahydro-8b-methyl-6a-(1-methylethyl)-1-oxotrioxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-6-yl] ester, sodium salt (1:1) (CA INDEX NAME)

Absolute stereochemistry.



L114 ANSWER 8 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:487906 HCAPLUS Full-text
DOCUMENT NUMBER: 137:68163
TITLE: Delivery of therapeutic agents
INVENTOR(S): Sirhan, Motasim; Yan, John
PATENT ASSIGNEE(S): Avantec Vascular Corporation, USA
SOURCE: U.S. Pat. Appl. Publ., 49 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002082679	A1	20020627	US 2001-2595	20011101 <--
US 2002082677	A1	20020627	US 2001-782804	20010213 <--
US 7018405	B2	20060328		
US 2002114823	A1	20020822	US 2001-782927	20010213 <--
US 6471980	B2	20021029		
US 2003083646	A1	20030501	US 2001-17500	20011214 <--
US 7077859	B2	20060718		
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AU 2002343578	A1	20030512	AU 2002-343578		20021025 <--
EP 1448116	A1	20040825	EP 2002-780532		20021025 <--
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US 2006106453	A1	20060518	US 2005-302750		20051213 <--
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			WO 2002-US34350	W	20021025 <--
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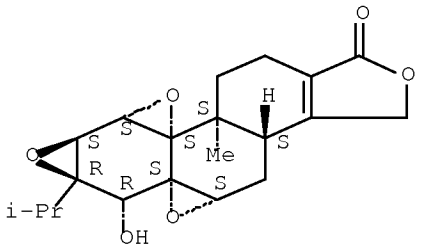
AB A device and a method using the device for reducing restenosis and hyperplasia after intravascular intervention are disclosed. The present invention also provides luminal prostheses which allow for controlled release of at least one therapeutic agent with increased efficacy to selected locations within a patient vasculature to reduce restenosis. An intraluminal prosthesis may comprise an expandable structure and a source adjacent the expandable structure for releasing the therapeutic capable agent into the body lumen to reduce smooth muscle cell proliferation. A therapeutic agent, mycophenolic acid, was prepared by dissolving it in acetone at 15 mg/mL. The amount of the drug agent varied in the range 0.1 μg-2 mg, preferably, at 600 μg. The drug solution was then coated onto or over a stent by spraying them with an atomizer sprayer, while the stent was rotated. The stent was allowed to let dry. The stent was then placed over the tri-fold balloon on a catheter and crimped thereon. After crimping, the drug remained intact and attached to the stent. Expansion of the stent against a simulated Tecoflex vessel showed no cracking of the drug.

IT 38748-32-2, Triptolide
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

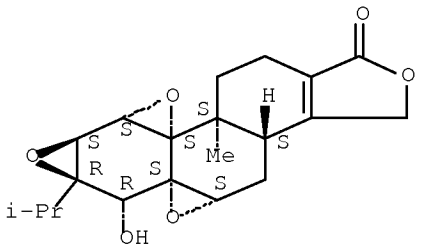
(delivery of therapeutic agents)
RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



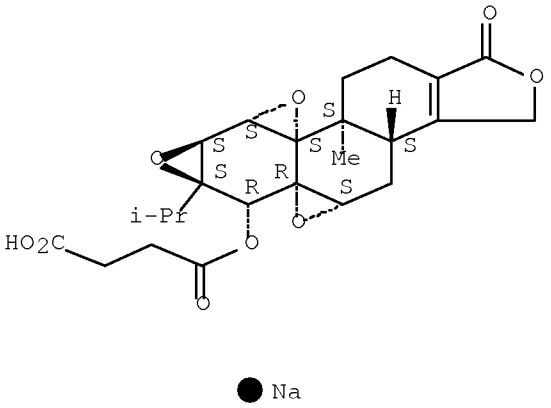
L114 ANSWER 9 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:304377 HCAPLUS Full-text
DOCUMENT NUMBER: 138:49188
TITLE: Immunosuppressive and antiinflammatory effects of triptolide and its prodrug PG-490-88
AUTHOR(S): Chen, Benny J.; Chao, Nelson J.
CORPORATE SOURCE: Bone Marrow Transplantation Program, Duke University Medical Center, Durham, NC, 27705, USA
SOURCE: Drugs of the Future (2002), 27(1), 57-60
CODEN: DRFUD4; ISSN: 0377-8282
PUBLISHER: Prous Science
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review summarizes the updated data from studies using purified triptolide and its prodrug PG-490-88. Triptolide is a diterpenoid triepoxide purified from Tripterygium wilfordii Hook F, an herb found in China. Triptolide inhibits T cell activation mainly through inhibition of interleukin-2 production Triptolide induces apoptosis of T cells by activating the caspase cascade. It can suppress the expression of multiple proinflammatory cytokines and mediators, which play important roles in the pathogenesis of autoimmune diseases, transplantation rejection and GVHD.
IT 38748-32-2, Triptolide 195883-09-1, PG-490-88
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(immunosuppressive and antiinflammatory effects of triptolide and its prodrug PG-490-88)
RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 195883-09-1 HCAPLUS
CN Butanedioic acid, 1-[(3bS,4aS,5aR,6R,6aS,7aS,7bS,8aS,8bS)-1,3,3b,4,4a,6,6a,7a,7b,8b,9,10-dodecahydro-8b-methyl-6a-(1-methylethyl)-1-oxotrioxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-6-yl] ester, sodium salt (1:1) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L114 ANSWER 10 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:275991 HCAPLUS Full-text
DOCUMENT NUMBER: 136:294953
TITLE: Preparation of triptolide analogs for therapeutic use in the treatment of autoimmune and inflammatory disorders
INVENTOR(S): Venkatesan, Hariharan; Snyder, James P.; Liotta, Dennis C.; Wang, Susheng
PATENT ASSIGNEE(S): Emory University, USA
SOURCE: PCT Int. Appl., 450 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

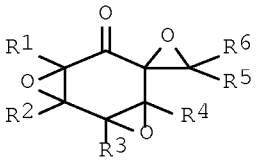
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002028862	A2	20020411	WO 2001-US30951	20011002 <--

WO 2002028862 A3 20020912
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2424555	A1	20020411	CA 2001-2424555		20011002 <--
AU 200196542	A	20020415	AU 2001-96542		20011002 <--
US 2003027806	A1	20030206	US 2001-970089		20011002 <--
US 6777441	B2	20040817			
EP 1330459	A2	20030730	EP 2001-977423		20011002 <--
EP 1330459	B1	20060802			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
JP 2004525082	T	20040819	JP 2002-532445		20011002 <--
EP 1659125	A1	20060524	EP 2005-77239		20011002 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR					
AT 334986	T	20060815	AT 2001-977423		20011002 <--
AU 2001296542	B2	20071025	AU 2001-296542		20011002 <--
US 2006040907	A1	20060223	US 2004-919824		20040817 <--
PRIORITY APPLN. INFO.:			US 2000-237557P	P	20001002 <--
			EP 2001-977423	A3	20011002 <--
			US 2001-970089	A1	20011002 <--
			WO 2001-US30951	W	20011002 <--

OTHER SOURCE(S): MARPAT 136:294953

GI



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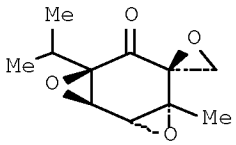

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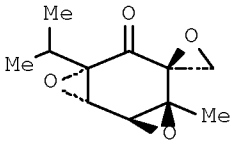
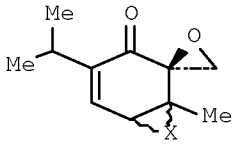


III



IV

AB Triptolide epoxide analogs, such as I [R1-6 = H, OH, NH2, NO2, CN, N3, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, heterocyclyl, heteroaryl, carboxyl, alkoxy, sulfonyl, sulfinyl, sulfanyl, sulfamoyl, phosphonyl, phosphinyl, phosphoryl, phosphinyl, etc.], were prepared for pharmaceutical use in the treatment of autoimmune and anti-inflammatory disorders. The triptolide analogs could be administered in an effective amount alone or in combination or alternation with other anti-autoimmune or

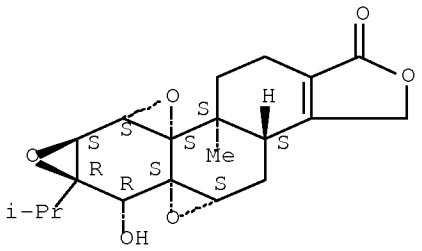
anti-inflammatory compds. Thus, diastereomeric epoxides II and III were prepared starting by hydroxy methylation of 5-methyl-2-(1-methylethyl)phenol with paraformaldehyde using SnCl4 and Et3N in toluene to form 2-hydroxy-6-methyl-3-(1- methylethyl)benzenemethanol, oxidation of the benzenemethanol with NaI04 in MeOH to give 8-methyl-5-(1-methylethyl)-1-oxaspiro[2.5]octa-5,7-dien-4- one. The spiro epoxide then underwent regioselective epoxidn. using mCPBA in CH2Cl2 to form bis-epoxides IV (X = α-O, β-O) which was subsequently epoxidized using H2O2 and 1 N NaOH in MeOH to form the target epoxides II and III. No specific biol. or pharmacol. testing data for the prepared triptolide epoxide analogs was presented.

IT 38748-32-2DP, Triptolide, analogs
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of triptolide analogs for therapeutic use in the treatment of autoimmune and inflammatory disorders)

RN 38748-32-2 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L114 ANSWER 11 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:171701 HCAPLUS Full-text
DOCUMENT NUMBER: 136:210591
TITLE: Medicinal preparation of Tripterygium wilfordii Hook. f extracts for preventing and treating nervous system disorders
INVENTOR(S): Wang, Xiaomin; Han, Jisheng; Li, Fengqiao; Wu, Xiaodong; Ma, Duanduan; Jiang, Yanwen; Tian, Rujin
PATENT ASSIGNEE(S): Peop. Rep. China
SOURCE: PCT Int. Appl., 21 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002017931	A1	20020307	WO 2000-CN258	20000901 <--
W: JP, US				
PRIORITY APPLN. INFO.:			WO 2000-CN258	20000901 <--

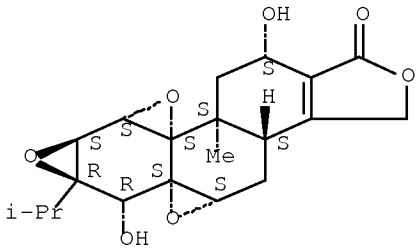
AB This invention relates to the use of one or more exts. of Tripterygium Wilfordii Hook. f as medicinal preparation for preventing and treating nervous

system disorders, said Tripterygium Hook. f exts. selected from: Triptolide, tripchloride, tripdiolide, triptriolide, 16-hydroxytriptolide, triptolidemol, triptolidenol, tripterine and wilfortrine. These tripterygium wilfordii exts. have immunosuppressive activity, as well as have significant nutritional effect of dopaminergic (DA) neuron. It can stimulate the growth of mesencephalic nerve cells, and stimulate elongation of process of primary cultured cortical nerve cells, they can antagonized the injury effect of exogenous toxin, endogenous toxin and excitatory nerve toxin on the nerve cells, and have remarkable protection on cell survival.

IT 38647-10-8, Tripdiolide 38748-32-2, Triptolide
99694-86-7, Triptolidenol 139713-80-7,
16-Hydroxytriptolide 167467-56-3
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(medicinal preparation of Tripterygium wilfordii Hook. f exts. for preventing and treating nervous system disorders)

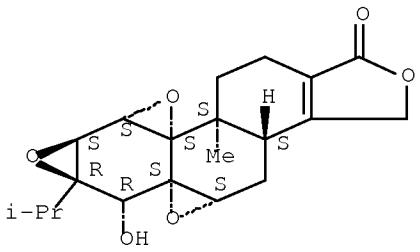
RN 38647-10-8 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6,10-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS,10S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



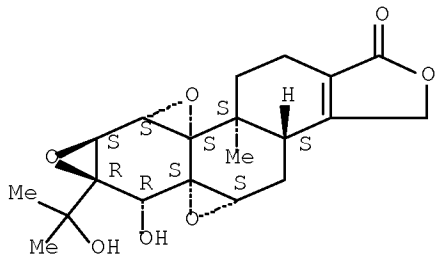
RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



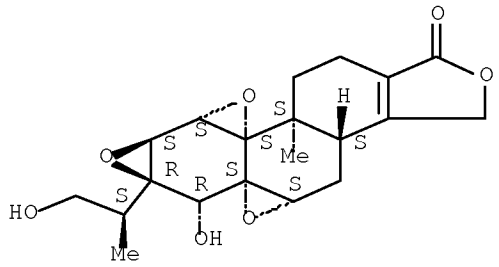
RN 99694-86-7 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-6a-(1-hydroxy-1-methylethyl)-8b-methyl-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.

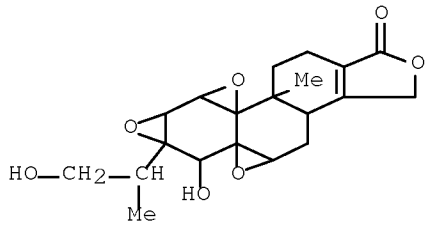


RN 139713-80-7 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-6a-[(1S)-2-hydroxy-1-methylethyl]-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



RN 167467-56-3 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-6a-(2-hydroxy-1-methylethyl)-8b-methyl-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L114 ANSWER 12 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN

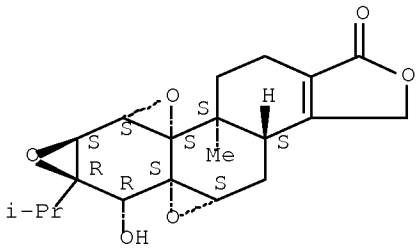
ACCESSION NUMBER: 2001:348543 HCAPLUS Full-text
DOCUMENT NUMBER: 136:161023
TITLE: Relationship between anti-inflammatory effects of antipsoriatic drugs and 5-lipoxygenase products
AUTHOR(S): Sun, Lianwen; Zheng, Jiarun; Chen, Yun; Li, Xinyu
CORPORATE SOURCE: Institute of Dermatology, Chinese Academy of Medical Sciences & Peking Union Medical College, Nanjing, 210042, Peop. Rep. China
SOURCE: Zhonghua Pifuke Zazhi (2001), 34(2), 110-112
CODEN: CHFTAJ; ISSN: 0412-4030
PUBLISHER: Zhongguo Yixue Kexueyuan Pifubing Yanjiuso
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB The effects of antipsoriatic drugs on 5-lipoxygenase (5-LO) were studied. 5-LO products, leukotriene B4 (LTB4) and 5-hydroxyeicosatetraenoic acid (5-HETE), were determined by RP-HPLC to represent 5-LO activity. Cyclosporin A (CyA) and triptolide (T0) inhibited the production of LTB4 and 5-HETE in a dose-dependent manner, while erythromycin did without dose dependence. The 50% inhibitory concentration values (IC50) of CyA inhibiting LTB4 and 5-HETE were 38.0 μg/mL and 0.96 μg/mL, resp. The IC50 of T0 inhibiting LTB4 and 5-HETE were 2.3X10-6 μg/mL and 1.14X10-6 μg/mL, resp. The anti-inflammatory effect of Tripterygium wilfordii Hook.f. may be partly explained by its inhibition of 5-LO activity. The anti-inflammatory effect of CyA has no clin. significance since the inhibitory concentration of CyA has exceeded its pharmacol. limitation. Erythromycin has no effect on 5-LO activity.

IT 38748-32-2, Triptolide
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(relationship between anti-inflammatory effects of antipsoriatic drugs and 5-lipoxygenase products)

RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L114 ANSWER 13 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:80465 HCAPLUS Full-text
DOCUMENT NUMBER: 134:261018
TITLE: Triptolide and chemotherapy cooperate in tumor cell apoptosis: a role for the p53 pathway
AUTHOR(S): Chang, Wen-Teh; Kang, Jason J.; Lee, Kye-Young; Wei, Ke; Anderson, Emily; Gotmare, Sonali; Ross, Jessica A.; Rosen, Glenn D.

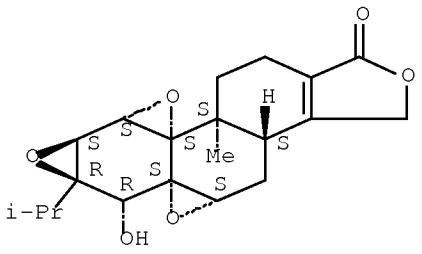
CORPORATE SOURCE: Division of Pulmonary and Critical Care Medicine, Stanford University Medical Center, Stanford, CA, 94305-5236, USA
SOURCE: Journal of Biological Chemistry (2001), 276(3), 2221-2227
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Triptolide (PG490), a diterpene triepoxide, is a potent immunosuppressive agent extracted from the Chinese herb Tripterygium wilfordii. We have previously shown that triptolide blocks NF-κB activation and sensitizes tumor necrosis factor (TNF-α)-resistant tumor cell lines to TNF-α-induced apoptosis. We show here that triptolide enhances chemotherapy-induced apoptosis. In triptolide-treated cells, the expression of p53 increased but the transcriptional function of p53 was inhibited, and we observed a down-regulation of p21waf1/cip1, a p53-responsive gene. The increase in levels of the p53 protein was mediated by enhanced translation of the p53 protein. Addnl., triptolide induced accumulation of cells in S phase and blocked doxorubicin-mediated accumulation of cells in G2/M and doxorubicin-mediated induction of p21. Our data suggest that triptolide, by blocking p21-mediated growth arrest, enhances apoptosis in tumor cells.

IT 38748-32-2, Triptolide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(triptolide and chemotherapy cooperate in tumor cell apoptosis)

RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L114 ANSWER 14 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:616239 HCAPLUS Full-text
DOCUMENT NUMBER: 134:80630
TITLE: Immunosuppressive activity of the Chinese medicinal plant Tripterygium wilfordii. I. Prolongation of rat cardiac and renal allograft survival by the PG27 extract and immunosuppressive synergy in combination

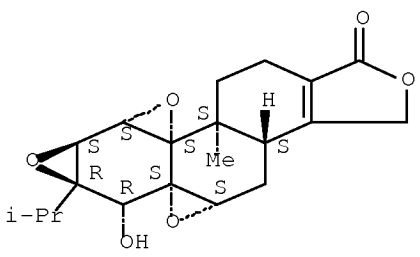
therapy with cyclosporine
AUTHOR(S): Wang, Jian; Xu, Rensheng; Jin, Renling; Chen, Zhenqing; Fidler, John M.
CORPORATE SOURCE: Pharmagenesis, Palo Alto, CA, 94304, USA
SOURCE: Transplantation (2000), 70(3), 447-455
CODEN: TRPLAU; ISSN: 0041-1337
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English

AB PG27 is an immunosuppressive fraction purified from an extract of a Chinese medicinal plant, T. wilfordii. PG27 was tested in rat cardiac and renal allotransplantation, and the immunosuppressive interaction with cyclosporine (CsA) was examined. Brown Norway (BN) rat heart or kidney allografts were transplanted into the abdomen of Lewis rats, which were treated i.p. or orally with PG27, CsA, or both. PG27 administered i.p. to Lewis recipients for 16 days at 10-30 mg/kg/day increased the median survival time of BN heart allografts from 7 to 18-22 days. Oral administration was effective, with cardiac allograft survival prolonged to >100 days with 52 days of treatment. PG27 at 20-30 mg/kg/day extended the median survival time of BN kidney allograft recipients from 9 to 36.5-77 days, and 30 mg/kg/day for 52 days extended survival beyond 200 days. PG27 combined with CsA enhanced heart and kidney allograft survival, even at doses of CsA ineffective when administered alone. The addition of 5 or 10 mg PG27/kg/day reduced by 50-75% the CsA dose needed for 100% kidney allograft survival. The combination index was <1.0, indicating synergy of PG27 with CsA in prolonging cardiac and renal allograft survival. Furthermore, the PG27/CsA combination exerted a pos. influence on renal allograft function. PG490 (triptolide, a constituent of PG27) and PG490-88 (a water-soluble prodrug of PG490, 14-succinyltriptolide sodium) suppressed rejection of cardiac and renal allografts. Thus the PG27 herbal extract demonstrated immunosuppressive activity by prolonging heart and kidney allograft survival, displaying synergy in the immunosuppressive interaction with CsA, and improving renal allograft function in combination with CsA. PG490 and PG490-88 were also effective.

IT 38748-32-2, Triptolide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(cardiac and renal allograft survival prolongation by the PG27 extract of Tripterygium wilfordii and its component triptolide)

RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



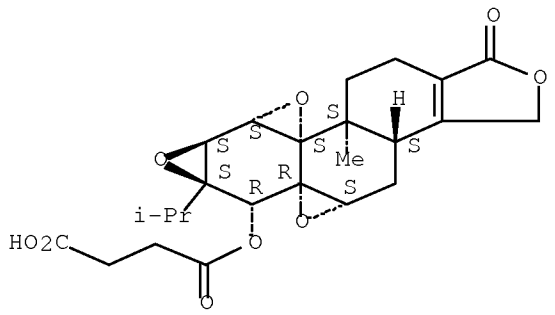
IT 195883-06-8
RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); BIOL (Biological study)
(cardiac and renal allograft survival prolongation by the PG27 extract of Tripterygium wilfordii, its component triptolide, and the latter's prodrug)

RN 195883-06-8 HCAPLUS

CN Butanedioic acid, 3-(3,4-dichlorophenyl)-2-(ethoxymethyl)-8-methyl-, 1-[(3bS,4aS,5aR,6R,6aS,7aS,7bS,8aS,8bS)-1,3,3b,4,4a,6,6a,7a,7b,8b,9,10-dodecahydro-8b-methyl-6a-(1-methylethyl)-1-oxotrisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-6-yl] ester (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L114 ANSWER 15 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:592571 HCAPLUS Full-text
DOCUMENT NUMBER: 133:172168
TITLE: Combined therapy of diterpenoid triepoxides and TRAIL (TNF-related apoptosis-inducing ligand) for synergistic killing of tumor cells
INVENTOR(S): Rosen, Glenn D.
PATENT ASSIGNEE(S): Board of Trustees of the Leland Stanford Junior University, USA
SOURCE: PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2000048619	A1	20000824	WO 2000-US3891		20000215 <--
W: AU, CA, JP, SG					
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE					
US 6329148	B1	20011211	US 2000-505250		20000215 <--
PRIORITY APPLN. INFO.:			US 1999-120313P	P	19990216 <--
			US 1999-149989P	P	19990820 <--

OTHER SOURCE(S): MARPAT 133:172168

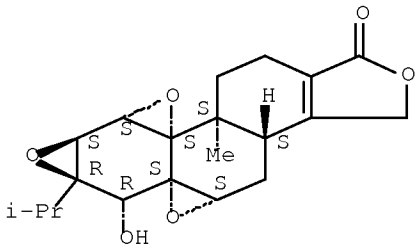
AB A synergistic combination of TRAIL or ligands that interact with TRAIL receptors, and diterpenoid triepoxides is used to increase tumor cell killing by induction of apoptosis. Ligands useful in the invention include TRAIL, analogs thereof, stabilized multimers of TRAIL, TRAIL mimetics, etc. Of

particular interest are combined therapy with the diterpenoid triepoxides triptolide and derivs. and analogs thereof. The combination of PG490, containing triptolide, and TRAIL induced apoptosis in greater than 80-99% of cells in all solid tumor cell lines tested.

IT 38748-32-2, Triptolide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(combined therapy of diterpenoid triepoxides and TRAIL (TNF-related apoptosis-inducing ligand) for synergistic killing of tumor cells)

RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

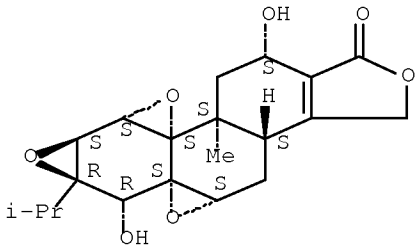
Absolute stereochemistry. Rotation (-).



IT 38647-10-8, Tripdiolide 38647-10-8D, Tripdiolide, esters 38748-32-2D, Triptolide, esters 139713-80-7, 16-Hydroxytriptolide 139713-80-7D, 16-Hydroxytriptolide, esters 195883-06-8
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(combined therapy of diterpenoid triepoxides and TRAIL (TNF-related apoptosis-inducing ligand) for synergistic killing of tumor cells)

RN 38647-10-8 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6,10-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS,10S)- (CA INDEX NAME)

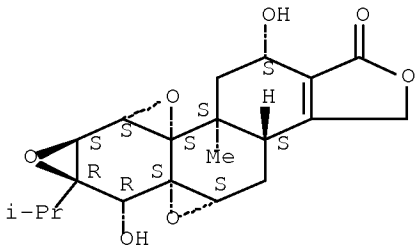
Absolute stereochemistry. Rotation (-).



RN 38647-10-8 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one,

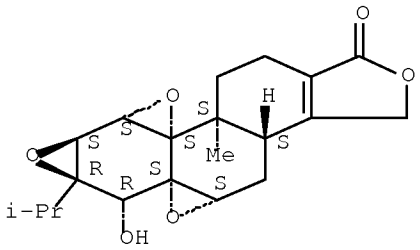
3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6,10-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS,10S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



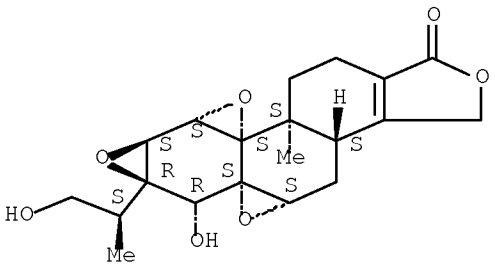
RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



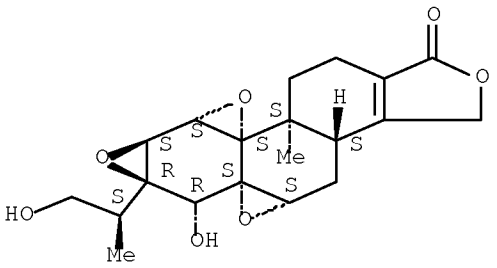
RN 139713-80-7 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-6a-[(1S)-2-hydroxy-1-methylethyl]-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



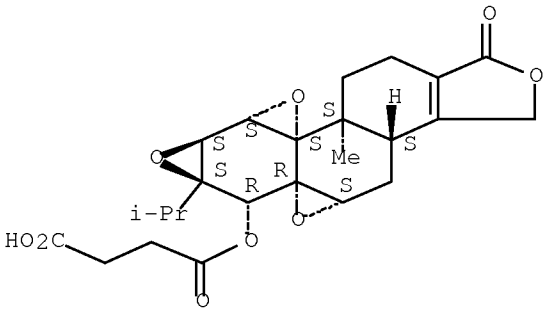
RN 139713-80-7 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-6a-[(1S)-2-hydroxy-1-methylethyl]-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



RN 195883-06-8 HCAPLUS
CN Butanedioic acid, 3-(3,4-dichlorophenyl)-2-(ethoxymethyl)-8-methyl-, 1-[(3bS,4aS,5aR,6R,6aS,7aS,7bS,8aS,8bS)-1,3,3b,4,4a,6,6a,7a,7b,8b,9,10-dodecahydro-8b-methyl-6a-(1-methylethyl)-1-oxotrisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-6-yl] ester (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L114 ANSWER 16 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:161261 HCAPLUS Full-text
DOCUMENT NUMBER: 132:194527
TITLE: synthesis of triptolide prodrugs having high aqueous solubility for immunosuppressive and anti-inflammatory treatment
INVENTOR(S): Musser, John H.
PATENT ASSIGNEE(S): Pharmagenesis, Inc., USA
SOURCE: PCT Int. Appl., 26 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000012483	A1	20000309	WO 1999-US20150	19990902 <--

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            CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
            IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD,
            MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,
            SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW
        RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
            ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
            CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
    CA 2342901          A1    20000309    CA 1999-2342901        19990902 <--
    AU 9962425          A1    20000321    AU 1999-62425          19990902 <--
    AU 764123           B2    20030807
    US 6150539          A     20001121    US 1999-389769         19990902 <--
    EP 1109789          A1    20010627    EP 1999-949582         19990902 <--
    EP 1109789          B1    20030716
        R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO
    JP 2002523495       T     20020730    JP 2000-567513         19990902 <--
    AT 245145           T     20030815    AT 1999-949582         19990902 <--
    EP 1375488          A1    20040102    EP 2003-16090          19990902 <--
    EP 1375488          B1    20060802
        R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL
    AT 334969           T     20060815    AT 2003-16090          19990902 <--
    US 6548537          B1    20030415    US 2001-798319         20010302 <--
PRIORITY APPLN. INFO.:                      US 1998-98809P      P  19980902 <--
                                            EP 1999-949582      A3 19990902 <--
                                            WO 1999-US20150     W  19990902 <--
OTHER SOURCE(S):        MARPAT 132:194527
GI
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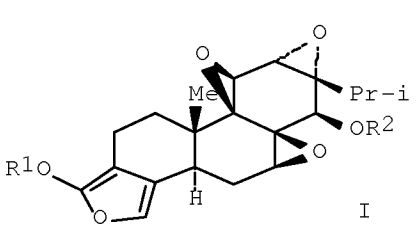
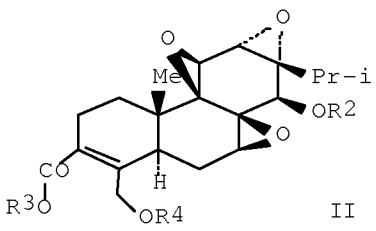
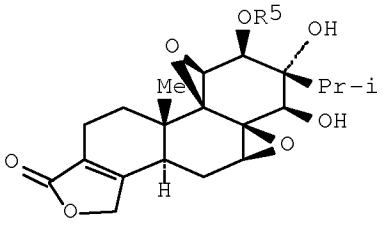


I



II



III

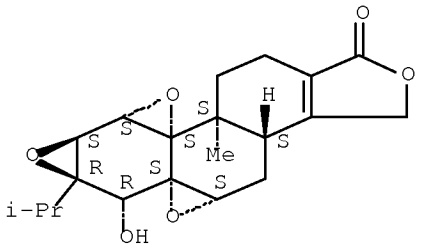
AB Synthesis of triptolide prodrugs (I) (R1 = carboxylic ester, carbonate, inorg. ester; R2 = mono-, di-, trisaccharide, H, carboxylic ester), (II) (R3 = substituted ester, substituted carbonate; R4 = R2), (III) [R5 = (un)substituted alkyl sulfonate, aryl sulfonate, fluorosulfonate, alkyl phosphate, alkyl borate, trialkylammonium, dialkylsulfonium] useful in

immunosuppressive and anti-inflammatory treatment are described. The hydrolyzable triptolide analogs have improved water solubility and generally lower toxicity than the parent compound and formulations (no data) are discussed.

IT 38748-32-2, Triptolide 260246-85-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of triptolide prodrugs having high aqueous solubility for immunosuppressive and anti-inflammatory treatment)

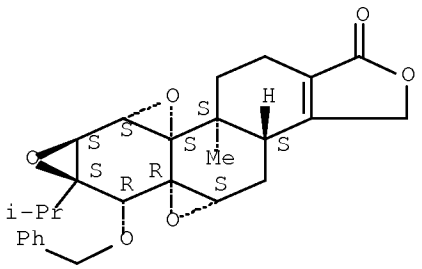
RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 260246-85-3 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-8b-methyl-6a-(1-methylethyl)-6-(phenylmethoxy)-, (3bS,4aS,5aR,6R,6aS,7aS,7bS,8aS,8bS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L114 ANSWER 17 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:433335 HCAPLUS Full-text
DOCUMENT NUMBER: 131:237675
TITLE: Fas expression on eosinophils in lungs and its changes after treatment in asthmatic guinea pigs
AUTHOR(S): Li, Zhikui; Wang, Changzheng; Qian, Guisheng
CORPORATE SOURCE: Xinqiao Hospital, Third Military Medical University, Chungking, 400037, Peop. Rep. China

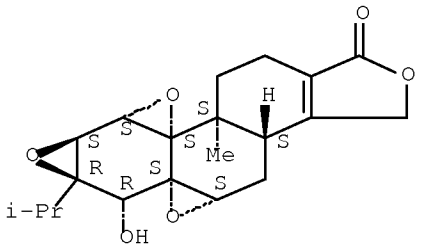
SOURCE: Di-San Junyi Daxue Xuebao (1999), 21(5), 321-324
CODEN: DYXUE8; ISSN: 1000-5404
PUBLISHER: Di-San Junyi Daxue
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB Aim: to determine the relationship between apoptosis of asthmatic eosinophils and Fas expression and their change after treatment with drugs. After the asthmatic guinea pigs were treated with dexamethasone (DM), triptolide (TP) and aminophylline (AM), apoptosis of the eosinophils was detected by TdT-mediated dUTP nick end labeling and Fas mRNA expression measured by RT-PCR and in situ hybridization. The number of the apoptotic eosinophils was significantly lower in asthmatic group than in the control ($P<0.01$) and markedly increased after treatment with DM, TP and AM ($P<0.01$). Fas mRNA of the eosinophils was moderately expressed in normal guinea pigs, decreased in asthmatic ones and significantly increased after treatment with the 3 agents ($P<0.05$). Fas may be one of the important factors regulating apoptosis of eosinophils in asthma. DM, TP and AM can up-regulate the Fas expression to promote apoptosis of eosinophils in the lungs of guinea pigs after asthma.

IT 38748-32-2, Triptolide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antiasthmatic drug effect on Fas expression in pulmonary eosinophils: apoptosis promotion)

RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L114 ANSWER 18 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:350493 HCAPLUS Full-text
DOCUMENT NUMBER: 131:124894
TITLE: Pharmacokinetics of triptolide. Development and application of a high performance liquid chromatographic method for quantitation of triptolide in plasma
AUTHOR(S): Mao, Yanping; Tao, Xuelian; Lipsky, Peter E.
CORPORATE SOURCE: Southwestern Medical Center at Dallas, University of Texas, Dallas, TX, 75235-8884, USA
SOURCE: Journal of Liquid Chromatography & Related Technologies (1999), 22(9), 1355-1366
CODEN: JLCTFC; ISSN: 1082-6076
PUBLISHER: Marcel Dekker, Inc.
DOCUMENT TYPE: Journal

LANGUAGE: English

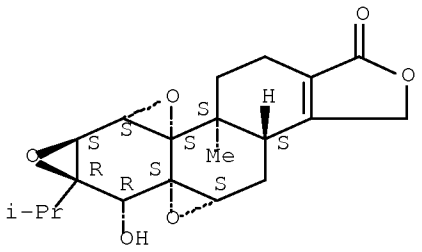
AB In order to evaluate the bioavailability and study the pharmacokinetics of triptolide, an HPLC method was developed for the quant. determination of this diterpenoid in plasma. The procedure for the plasma assay employed liquid-liquid extraction with chloroform followed by high speed centrifugation. The UV absorbance of the effluent was monitored at 218 nm. An internal standard (acetophenone) was used to calibrate injection and instrument reaction errors. The proposed methodol. is sensitive, rapid, and reproducible. The limit of quantitation is 0.005 mg /L in plasma (0.05 mg /L in final solution) and a linear range of determination is observed over the concentration of 0.05 mg/L to 30 mg/L. The inter- and intraday coeffs. of variation for the assay of triptolide in plasma were < 16.82 % at low concentration (0.005-0.076 mg/L) and < 8.05% at high concentration (0.152-5.000 mg/L). Recovery of triptolide in plasma is greater than 96.72%. Triptolide was stable in plasma during 30 days of storage at - 80℃, whereas degradation products appeared within 4 h when it was dissolved in methanol at room temperature The method was employed to determine the pharmacokinetics of triptolide in rat plasma. After oral administration of a single dose of 840 μg/kg, triptolide was found to reach a peak concentration (Cmax) of 0.210 μg/mL in 19.5min. (Tmax). The AUC was 157.28 μg and the elimination half time was 50.60 min..

IT 38748-32-2, Triptolide
RL: ANT (Analyte); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process)
(pharmacokinetics of triptolide: development and application of HPLC for triptolide plasma determination)

RN 38748-32-2 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L114 ANSWER 19 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:364733 HCAPLUS Full-text
DOCUMENT NUMBER: 129:12738
TITLE: Method for suppressing xenograft rejection using immunosuppressant drug and Tripterygium wilfordii extract or triptolide component thereof
INVENTOR(S): Wiedmann, Tien Wen Tao; Wang, Jian
PATENT ASSIGNEE(S): Pharmagenesis, Inc., USA
SOURCE: U.S., 30 pp., Cont.-in-part of U.S. 307,948, abandoned.

CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

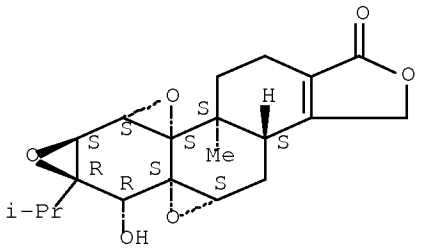
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5759550	A	19980602	US 1995-484782	19950607 <--
US 5843452	A	19981201	US 1994-252953	19940602 <--
WO 9608262	A1	19960321	WO 1995-US11645	19950915 <--
W: AU, CA, CN, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9536317	A	19960329	AU 1995-36317	19950915 <--
PRIORITY APPLN. INFO.:			US 1993-58321 B2	19930506 <--
			US 1994-222853 B2	19940405 <--
			US 1994-252953 B2	19940602 <--
			US 1994-307948 B2	19940915 <--
			US 1992-973634 B2	19921109 <--
			US 1995-484206 A	19950607 <--
			US 1995-484407 A	19950607 <--
			US 1995-484782 A	19950607 <--
			WO 1995-US11645 W	19950915 <--

AB An improved method for suppressing xenograft rejection in a host subject is disclosed. The method includes administering an immunosuppressant drug, e.g. cyclosporin A, where the drug or the amount of drug administered is, by itself, ineffective to suppress xenograft rejection. Effective xenograft suppression is achieved by also administering an ethanolic extract of Tripterygium wilfordii or a purified triptolide component thereof.

IT 38748-32-2, Triptolide 139713-80-7, 16-Hydroxytriptolide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(immunosuppressant drug and Tripterygium wilfordii extract or triptolide component thereof for suppression of xenograft rejection)

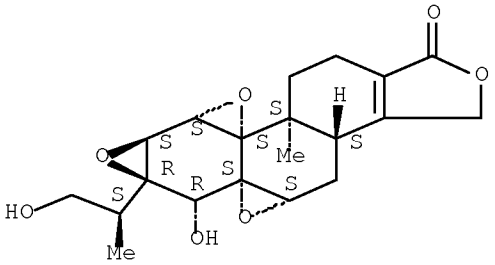
RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 139713-80-7 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-6a-[(1S)-2-hydroxy-1-methylethyl]-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L114 ANSWER 20 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:251048 HCAPLUS Full-text
DOCUMENT NUMBER: 128:278985
TITLE: The medicine containing triptolide for preventing and/or treating acute graft rejection
INVENTOR(S): Li, Leishi
PATENT ASSIGNEE(S): Nanjing General Hospital of Nanjing Command Pla, Peop. Rep. China; Li, Leishi
SOURCE: PCT Int. Appl., 17 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

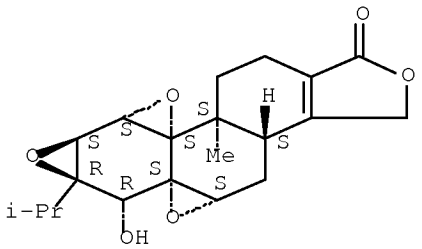
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9816219	A1	19980423	WO 1997-CN100	19971010 <--
W: JP, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CN 1179306	A	19980422	CN 1996-117128	19961015 <--
PRIORITY APPLN. INFO.:			CN 1996-117128 A	19961015 <--

AB The invention relates to the medicine containing triptolide for prevention and/or treatment of acute graft rejection. The medicine significantly prolongs the survival of the graft at the dose of 120-180 μg/kg/day. To obtain better effect, triptolide can be administered with cyclosporin A, or with cyclosporin A, azathioprine, and corticoid(s).

IT 38748-32-2, Triptolide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(the medicine containing triptolide for preventing and/or treating acute graft rejection)

RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

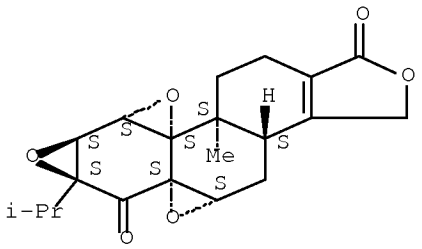
L114 ANSWER 21 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:491899 HCAPLUS Full-text
DOCUMENT NUMBER: 127:185523
TITLE: Pharmacokinetics and disposition of triptonide in rats
AUTHOR(S): Gang, Yanyun; Zhang, Zhengxing; Zhang, Shengqiang; Liu, Xiaodong; An, Dengkui
CORPORATE SOURCE: Zhongkun Institute of Pharmacy, China Pharmaceutical University, Nanjing, 210009, Peop. Rep. China
SOURCE: Yaoxue Xuebao (1996), 31(12), 902-906
CODEN: YHHPAL; ISSN: 0513-4870
PUBLISHER: Chinese Academy of Medical Sciences, Institute of Materia Media
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB A RP-HPLC method was applied to determine the plasma concentration of triptonide at different time in rats. Concentration-time curves after i.v. 0.7, 1.4, and 2.8 mg/kg of triptonide were fitted to a 2-compartment open model with T1/2α of 0.167-0.195 h and T1/2β of 4.95-6.49 h. The area under curves (AUCs) were linearly relative to the dosages. Systematic clearances were independent of dosages. Mean residence time (MRT) of the 3 doses was 3.26-5.14 h by noncompartmental (the statistical moment method) analyses. The tissue distribution of triptonide in rats was wide throughout the body. The triptonide levels were high in the lung and liver, moderate in the heart, kidney, spleen, and muscle, and low in the testis, intestine, and brain. Data of the urine and bile excretion indicated that only a small percent of unchanged triptonide was excreted. Plasma protein of triptonide rate was .apprx.75%.

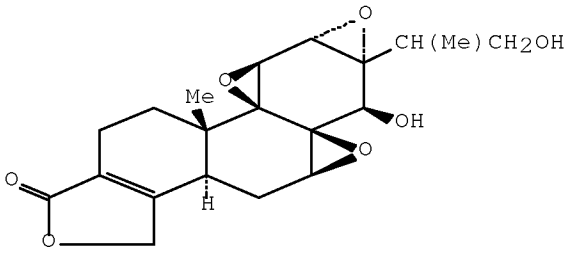
IT 38647-11-9, Triptonide
RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(pharmacokinetics and disposition of triptonide in rats)

RN 38647-11-9 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1,6(3H,6aH)-dione, 3b,4,4a,7a,7b,8b,9,10-octahydro-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6aS,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



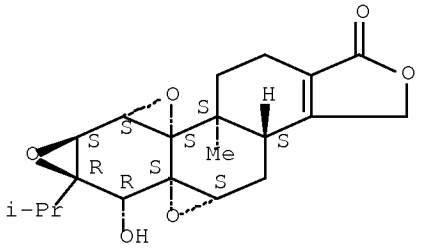
L114 ANSWER 22 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1993:468046 HCAPLUS Full-text
DOCUMENT NUMBER: 119:68046
TITLE: 16-Hydroxytriptolide: an active compound from Tripterygium wilfordii
AUTHOR(S): Ma, Pengcheng; Lu, Xieyu; Yang, Jingjing; Yang, Jingjing; Zheng, Qitai
CORPORATE SOURCE: Inst. Dermatol., Chin. Acad. Med. Sci., Nanjing, 210042, Peop. Rep. China
SOURCE: Journal of Chinese Pharmaceutical Sciences (1992), 1(2), 12-18
CODEN: JCHSE4; ISSN: 1003-1057
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

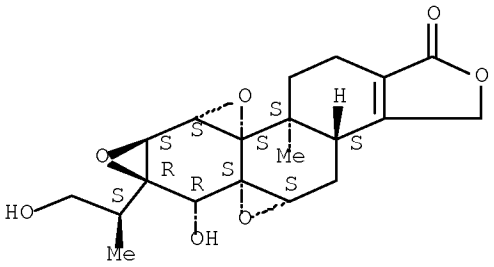
AB From the dried roots and leaves of Tripterygium wilfordii, a new diterpenoid triepoxide, 16-hydroxytriptolide (I) was isolated, and its structure and stereochem. elucidated as 16-(S)-hydroxytriptolide on the basis of spectral data (IR, MS, UV, 1H NMR, 13C NMR, 2d-NMR, selective long-range DEPT) and x-ray crystallog. anal. This compound showed definite antiinflammatory action, strong immunosuppressive and antifertility activities. In addition, a known compound, triptolide was also isolated and all the spectral signals of 1H NMR and 13C NMR were assigned.
IT 38748-32-2, Triptolide
RL: BIOL (Biological study)
(from Tripterygium wilfordii)
RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 139713-80-7
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(from Tripterygium wilfordii, pharmacol. activity of)
RN 139713-80-7 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-6a-[(1S)-2-hydroxy-1-methylethyl]-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

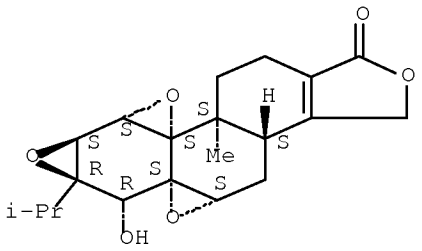
Absolute stereochemistry.



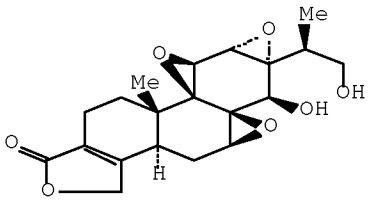
L114 ANSWER 23 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1993:132271 HCAPLUS Full-text
DOCUMENT NUMBER: 118:132271
TITLE: Quantitative analysis of tripchlorolide in pharmaceutical preparation by RP-HPLC
AUTHOR(S): Zhang, D. M.; Yu, D. Q.; He, L. Y.
CORPORATE SOURCE: Inst. Mater. Med., Chin. Acad. Med. Sci., Beijing, 100050, Peop. Rep. China
SOURCE: Yaoxue Xuebao (1992), 27(8), 638-40
CODEN: YHHPAL; ISSN: 0513-4870
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB A reversed-phase (RP) HPLC method for the assay of tripchloride (T4) in pharmaceutical preparation was developed. The method used a Nucleosil 5 C18 column and a mobile phase of methanol-water (1:1). The column effluent was monitored at 218 nm. T4, triptolide (T0), and 1,4-dimethoxybenzene (IS) could be separated in less than 25 min. The retention times of T0, T4 and IS were 11, 17 and 23 min, resp. The method is very simple and rapid.
IT 38748-32-2, Triptolide

RL: ANT (Analyte); ANST (Analytical study)
(determination of, in tripchlorolide pharmaceuticals by reversed-phase HPLC)
RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L114 ANSWER 24 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1992:143775 HCAPLUS Full-text
DOCUMENT NUMBER: 116:143775
TITLE: 16-Hydroxytriptolide, a new active diterpene isolated from Tripterygium wilford H
AUTHOR(S): Ma, P. C.; Lu, X. Y.; Yang, J. J.; Zheng, Q. T.
CORPORATE SOURCE: Inst. Dematol., Chin. Acad. Med. Sci., Nanjing, 210042, Peop. Rep. China
SOURCE: Yaoxue Xuebao (1991), 26(10), 759-63
CODEN: YHHPAL; ISSN: 0513-4870
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
GI

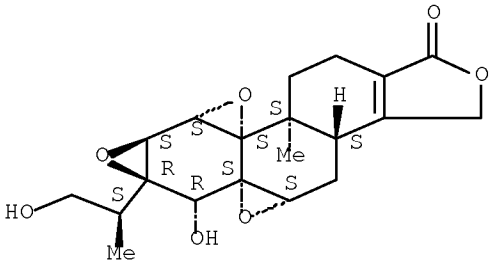


I

AB A new diterpene triepoxide, 16-hydroxytriptolide (I), was isolated from the root and leaves of T. wilfordii. I was obtained as a white cluster crystal, mp 232-233.5°. Its mol. formula is C20H24O7. In the pharmacol. screening, I showed anti-inflammatory actions and strong immunosuppressive and antifertile activities. In its anti-inflammatory action, its half ED (ED50) was 0.12 mg/kg with the model of croton oil-induced ear swelling in mice. In its immunosuppressive action, its ED20 was 0.05 mg/kg with the model of the formation of hemolysin antibody of mice. Its lowest effective oral dose was 0.027 mg/kg × 22 day for antifertile action.

IT 139713-80-7
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(of Tripterygium wilfordii leaf and root, isolation and pharmacol. and structure of)
RN 139713-80-7 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-6a-[(1S)-2-hydroxy-1-methylethyl]-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

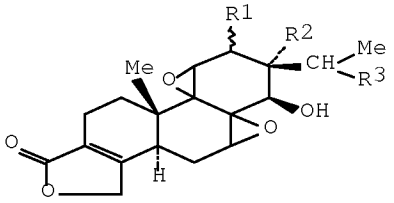
Absolute stereochemistry.



L114 ANSWER 25 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1992:136234 HCAPLUS Full-text
DOCUMENT NUMBER: 116:136234
TITLE: Isolation of 17-hydroxytriptolide and analogs as drugs
INVENTOR(S): Ma, Pengcheng; Zheng, Jiarun; Lu, Xieyu
PATENT ASSIGNEE(S): Chinese Academy of Medical Sciences, Institute of Skin Disease, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 12 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE	
CN 1052859	A	19910710	CN 1989-105432		19891222	<--
US 5430054	A	19950704	US 1990-629411		19901218	<--
PRIORITY APPLN. INFO.:			CN 1989-105432	A	19891222	<--
			CN 1989-105433	A	19891222	<--
			CN 1989-105434	A	19891222	<--
			CN 1990-105750	A	19901013	<--

OTHER SOURCE(S): MARPAT 116:136234
GI



I

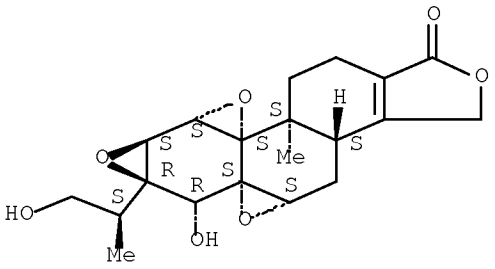
AB The title compds. (I; R1 = halo, OH, MeO; R2 = F, Cl, OH, R1R2 = O; R3 = halomethyl, CH2OH, CH2OMe, CHO, etc.), useful as antiinflammatory, antitumor, contraceptive agents, and immunosuppressants (no data), are isolated from Tripterygium wilfordii. Extraction of 20 kg T. wilfordii with 75-95% EtOH, concentration, partition in CHCl3, and silica gel column chromatog. gave pure triptolide (I: R1R2 = O; R3 = CH2OH), which was hydrolyzed with HX (X = halo) to give I (R1 = X, R2 = OH, R3 = CH2OH) and further reacted to give addnl. I derivs.

IT 139713-80-7
RL: PROC (Process)
(isolation of, from Tripterygium wilfordii)

RN 139713-80-7 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-6a-[(1S)-2-hydroxy-1-methylethyl]-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

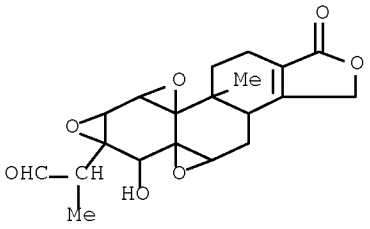
Absolute stereochemistry.



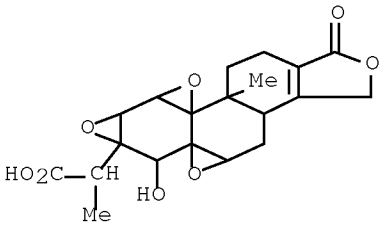
IT 139601-46-0P 139601-47-1P, Triptolid-16-oic acid
139601-48-2P 139601-49-3P 139601-50-6P
139601-51-7P 139601-52-8P 139601-53-9P
139601-54-0P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of, as drug)

RN 139601-46-0 HCAPLUS

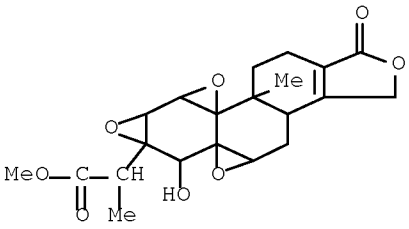
CN Triptolide, 16-oxo- (9CI) (CA INDEX NAME)



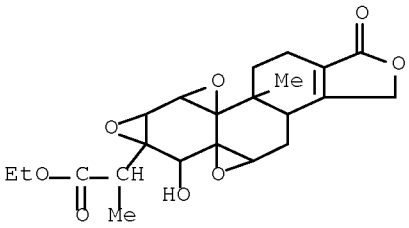
RN 139601-47-1 HCAPLUS
CN Triptolid-16-oic acid (9CI) (CA INDEX NAME)



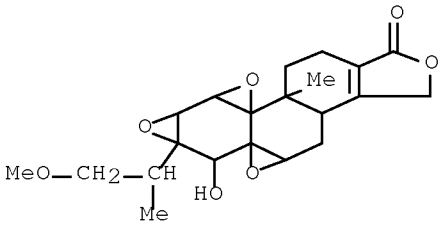
RN 139601-48-2 HCAPLUS
CN Triptolid-16-oic acid, methyl ester (9CI) (CA INDEX NAME)



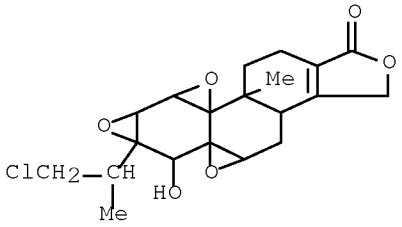
RN 139601-49-3 HCAPLUS
CN Triptolid-16-oic acid, ethyl ester (9CI) (CA INDEX NAME)



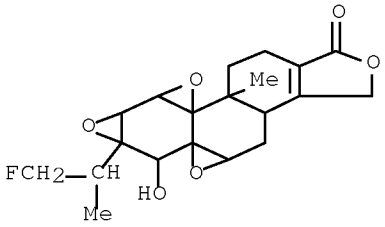
RN 139601-50-6 HCAPLUS
CN Triptolide, 16-methoxy- (9CI) (CA INDEX NAME)



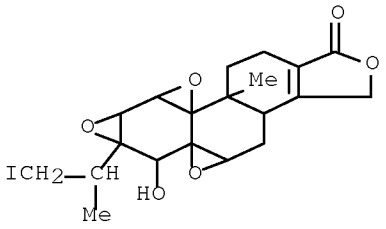
RN 139601-51-7 HCAPLUS
CN Triptolide, 16-chloro- (9CI) (CA INDEX NAME)



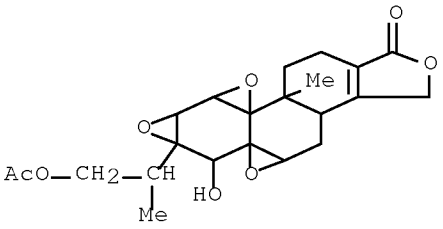
RN 139601-52-8 HCAPLUS
CN Triptolide, 16-fluoro- (9CI) (CA INDEX NAME)



RN 139601-53-9 HCAPLUS
CN Triptolide, 16-iodo- (9CI) (CA INDEX NAME)

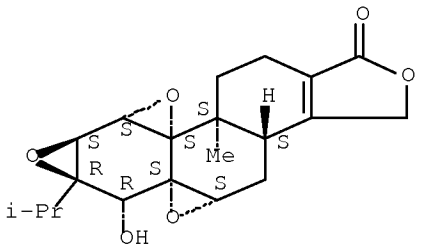


RN 139601-54-0 HCAPLUS
CN Triptolide, 16-(acetyloxy)- (9CI) (CA INDEX NAME)

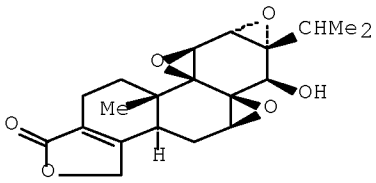


L114 ANSWER 26 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1988:197603 HCAPLUS Full-text
DOCUMENT NUMBER: 108:197603
TITLE: Pharmacology and toxicology of Tripterygium wilfordii
AUTHOR(S): Gu, Kexian; Zheng, Jiarun
CORPORATE SOURCE: Inst. Dermatol., Chin. Acad. Med. Sci., Beijing, Peop. Rep. China
SOURCE: Jiangsu Yiyao (1987), 13(12), 644-5
CODEN: CIYADX; ISSN: 0253-3685
DOCUMENT TYPE: Journal; General Review
LANGUAGE: Chinese
AB A review, with 8 refs., of the pharmacol. (anti-inflammatory, immunosuppressant, and reproduction-affecting actions) and toxicity of triptolide from T. wilfordii.
IT 38748-32-2, Triptolide
RL: BIOL (Biological study)
(of Tripterygium wilfordii, pharmacol. and toxicity of)
RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



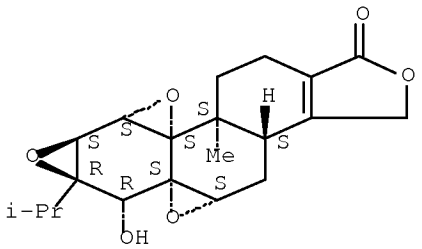
L114 ANSWER 27 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1981:473690 HCAPLUS Full-text
DOCUMENT NUMBER: 95:73690
ORIGINAL REFERENCE NO.: 95:12327a,12330a
TITLE: Antineoplastic effect of triptolide and its effect on the immunologic functions in mice
AUTHOR(S): Zhang, Tan-Mu; Chen, Zheng-Yu; Lin, Chen
CORPORATE SOURCE: Dep. Pharmacol., Henan Med. Inst., Zhengzhou, 450052, Peop. Rep. China
SOURCE: Zhongguo Yaoli Xuebao (1981), 2(2), 128-31
CODEN: CYLPDN; ISSN: 0253-9756
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
GI



I

AB Triptolide (I) [38748-32-2] (0.2 or 0.25 mg/kg, i.p.) increased survival time of leukemia L 615-bearing mice. The drug had a depressant effect on humoral but not cell-mediated immunity.
IT 38748-32-2
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(neoplasm inhibition by, immunosuppression in relation to)
RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

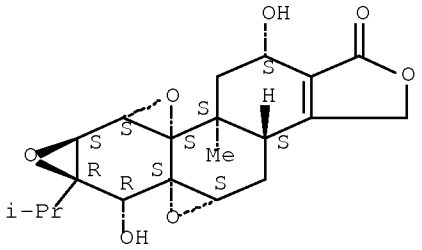


L114 ANSWER 28 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1975:77095 HCAPLUS Full-text
DOCUMENT NUMBER: 82:77095
ORIGINAL REFERENCE NO.: 82:12299a,12302a
TITLE: Antileukemic triepoxyditerpenes from Tripterygium wilfordii
INVENTOR(S): Kupchan, S. Morris
PATENT ASSIGNEE(S): Research Corp.
SOURCE: Ger. Offen., 24 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2316916	A1	19741017	DE 1973-2316916	19730404 <--
PRIORITY APPLN. INFO.:			DE 1973-2316916 A	19730404 <--

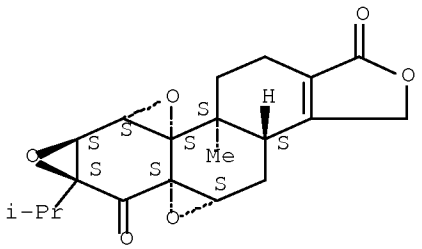
GI For diagram(s), see printed CA Issue.
AB Tripdiolide (I, R = OH) [38647-10-8], triptolide (I, R = H) [38748-32-2], and triptonide (II) [38647-11-9], useful as antileukemic drugs, were isolated from the EtOH extract of the roots of T. wilfordii by various extractive and chromatog. steps.
IT 38647-10-8 38647-11-9 38748-32-2
RL: BIOL (Biological study)
(of Tripterygium wilfordii, antileukemic)
RN 38647-10-8 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6,10-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS,10S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



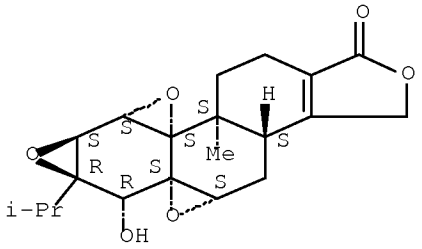
RN 38647-11-9 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1,6(3H,6aH)-dione, 3b,4,4a,7a,7b,8b,9,10-octahydro-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6aS,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



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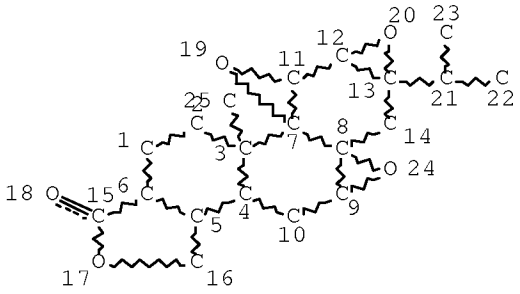
L108 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 25

STEREO ATTRIBUTES: NONE
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L111 551 SEA FILE=HCAPLUS ABB=ON PLU=ON L110
L112 77 SEA FILE=HCAPLUS ABB=ON PLU=ON L111(L)(?MEDIC? OR ?THERAP? OR ?DRUG? OR ?PHARMA?)
L113 259 SEA FILE=HCAPLUS ABB=ON PLU=ON L111 AND (AY<2003 OR PY<2003 OR PRY<2003 OR PD=<JANUARY 27, 2002)
L114 28 SEA FILE=HCAPLUS ABB=ON PLU=ON L113 AND L112
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L116 16 SEA FILE=HCAPLUS ABB=ON PLU=ON L115 AND (AY<2003 OR PY<2003 OR PRY<2003 OR PD=<JANUARY 27, 2002)
L117 12 SEA FILE=HCAPLUS ABB=ON PLU=ON L116 NOT L114

=> D IBIB ABS HITSTR L117 1-12

L117 ANSWER 1 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:650933 HCAPLUS Full-text
DOCUMENT NUMBER: 133:344770
TITLE: Long-term effects of triptolide on spermatogenesis, epididymal sperm function, and fertility in male rats
AUTHOR(S): Huynh, Phuong N.; Hikim, Amiya P. Sinha; Wang, Christina; Stefonovic, Ksenija; Lue, Yan He; Leung, Andrew; Atienza, Vince; Baravarian, Sima; Reutrakul, Vichai; Swerdloff, Ronald S.
CORPORATE SOURCE: Division of Endocrinology, Department of Medicine, Harbor-UCLA Medical Center, Torrance, CA, 90509, USA
SOURCE: Journal of Andrology (2000), 21(5), 689-699
CODEN: JOAND3; ISSN: 0196-3635
PUBLISHER: American Society of Andrology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Prior studies had suggested that triptolide, a diterpene triepoxide isolated from a Chinese medicinal plant, might be an attractive candidate as a post-testicular male contraceptive agent. Despite the promise that triptolide would not affect testis function, nagging concerns remained that a delayed onset of testicular effect might exist. The objectives of this study were to assess the effects of relatively longer treatment duration of triptolide on fertility, spermatogenesis, and epididymal sperm pathophysiol.; and to evaluate the reversibility of these effects after the cessation of treatment. Adult male Sprague-Dawley rats were fed daily with either 30% gum acacia as a vehicle control (n = 12) or 100 μg/kg body weight (BW) of triptolide for 82 days (n = 12) followed by a recovery period of up to 14 wk (n = 6). At the end of the treatment period, all rats treated with triptolide were sterile. Cauda epididymal sperm content decreased by 84.8% and sperm motility was reduced to zero. In addition, virtually all cauda epididymal sperm in the triptolide-treated group exhibited severe structural abnormalities. The most striking changes observed were head-tail separation, premature chromatin decondensation of sperm nuclei, a complete absence of the plasma membrane of the entire middle and principle pieces, disorganization of the mitochondrial sheath, and aggregation of many sperm tails. Longer treatment duration of triptolide also affected spermatogenesis, with marked variability in the response of individual animals. The degree of damage ranged from apparently

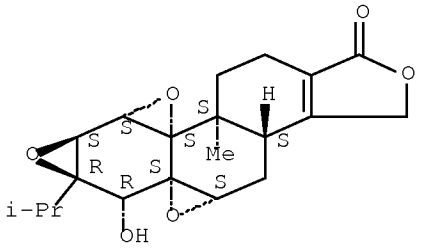
normal-looking seminiferous tubules to flattened seminiferous epithelium lined by a single layer of cells consisting of Sertoli cells and a few spermatogonia. Affected tubules exhibited intraepithelial vacuoles of varying sizes, multinucleated giant cells, germ cell exfoliation, and tubular atrophy. Recovery occurred as early as 6 wk after cessation of treatment. By 14 wk, 4 out of 6 triptolide-treated males were fertile and the females that were impregnated by 3 out of 4 triptolide-treated male rats produced apparently normal litters. These results suggest that triptolide has 2 phenotypic effects on mature and maturing germ cells. The first action appears earlier and manifests mainly in epididymal sperm. The second action presumably is directly on germ cells in testis and causes a variable impairment of spermatogenesis that may not be completely reversible. It is unclear if the earlier effect is a delayed manifestation of subtle testicular injury or post-testicular action.

IT 38748-32-2, Triptolide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(triptolide long-term effects on spermatogenesis, epididymal sperm function, and fertility in male rats)

RN 38748-32-2 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L117 ANSWER 2 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:383487 HCAPLUS Full-text

DOCUMENT NUMBER: 133:130000

TITLE: Posttesticular antifertility action of triptolide in the male rat: Evidence for severe impairment of cauda epididymal sperm ultrastructure

AUTHOR(S): Hikim, Amiya P. Sinha; Lue, Yan He; Wang, Christina; Reutrakul, Vichai; Sangsuwan, Ranee; Swerdloff, Ronald S.

CORPORATE SOURCE: Division of Endocrinology, Department of Medicine, Harbor-UCLA Medical Center and Harbor-UCLA Research and Education Institute, Torrance, CA, 90509, USA

SOURCE: Journal of Andrology (2000), 21(3), 431-437
CODEN: JOAND3; ISSN: 0196-3635

PUBLISHER: American Society of Andrology

DOCUMENT TYPE: Journal

LANGUAGE: English

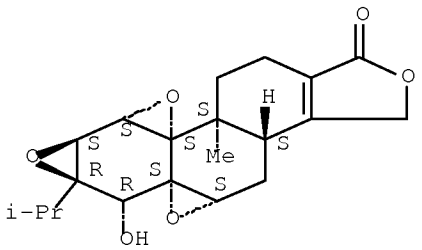
AB A variety of active diterpene epoxides, including the triptolide (isolated from Tripterygium wilfordii) have been reported to cause infertility in male rats. Previously, the authors showed that oral administration of triptolide at a dosage of 100 μg/kg per body weight for 70 days completely inhibited fertility in male rats, with little or no demonstrable detrimental effect on spermatogenesis and Leydig cell function as determined by testicular light microscopic appearance and serum and intratesticular testosterone levels. Despite the apparent absence of effects on the testes, cauda epididymal sperm were abnormal, with complete cessation of sperm motility and some reduction in sperm nos. This study was undertaken to provide addnl. insight into the subcellular sites and possible mechanisms of action of this compound using ultrastructural anal. of the testes and epididymis. The most striking effect of triptolide treatment was observed in sperm in the epididymis. In rats rendered infertile with 100 μg/kg per body weight of triptolide daily for 70 days, virtually all cauda epididymal sperm exhibited complete absence of plasma membrane over the entire middle and principal piece, premature decondensation of the nuclei, and disorganization of the mitochondrial sheath with many vacuolated mitochondria. No ultrastructural differences in the epididymal epithelium were observed between control and triptolide-treated rats. The testes appeared to be mildly affected after triptolide treatment but exhibited only subtle ultrastructural defects in the germ cells. The findings of severe impairment of cauda epididymal sperm ultrastructure, along with minimal discernible abnormalities in the fine structural cytol. of the testes, further suggest that the site of action of this compound is posttesticular and may be confined to the cauda epididymal sperm. However, the authors cannot rule out an effect of triptolide that occurs during germ cell maturation but is delayed in its manifestation or triggered at the rete testis and epididymal level.

IT 38748-32-2, Triptolide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(posttesticular antifertility action of triptolide in male rat: evidence for severe impairment of cauda epididymal sperm ultrastructure)

RN 38748-32-2 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L117 ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN

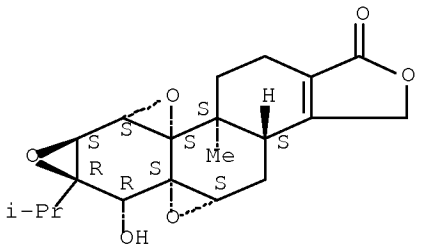
ACCESSION NUMBER: 1998:588838 HCAPLUS Full-text
DOCUMENT NUMBER: 129:326212
TITLE: Triptolide: a potential male contraceptive
AUTHOR(S): Lue, Yanhe; Hikim, Amiya P. Sinha; Wang, Christina; Leung, Andrew; Baravarian, Sima; Reutrakul, Vichai; Sangsawan, Ranee; Chaichana, Suttiporn; Swerdloff, Ronald S.
CORPORATE SOURCE: Division of Endocrinology, Harbor-UCLA Medical Center, Torrance, CA, 90509, USA
SOURCE: Journal of Andrology (1998), 19(4), 479-486
CODEN: JOAND3; ISSN: 0196-3635
PUBLISHER: American Society of Andrology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The antifertility effect of triptolide and other related compds., isolated from Tripterygium wilfordii, has been demonstrated in male rats. The exact sites and mechanism of action of triptolide remain unknown. Our objectives were to determine whether triptolide at selected dose levels that induce infertility has any detrimental effects on the testes and to determine the sites and the possible mechanisms of its action. Groups of six adult male Sprague-Dawley rats were given oral administration of either vehicle (control group) or triptolide (50 or 100 μg/kg) daily for 35 or 70 days. Body weight gain was normal in all treated groups. All six rats treated with a high dosage of triptolide were infertile during the second (63-70 days) mating trial. A lower dose (50 μg) of triptolide gave intermediate fertility values. Plasma levels of LH, FSH, testosterone, and intratesticular testosterone were not significantly different between control and triptolide-treated groups. Cauda epididymal sperm content was decreased by 68% and the motility, which averaged 58.2% in the control rat, was reduced to almost zero. No effects of triptolide were observed on testis and accessory organs weight, vols. of tubular lumen and the total Leydig cells, tubule diameter, and the number of Sertoli cells, spermatogonia, preleptotene (PL), and pachytene (P) spermatocytes. There were, however, modest but significant decreases in tubule volume and the number of round spermatids at stages VII-VIII. No changes in the germ cell apoptotic index measured at stages VII-VIII and XIV-I were noted between controls and rats rendered infertile with a high dose of triptolide. Thus, triptolide, at a dose level that induces complete infertility in the adult rats, has minimal adverse effects on the testes and acts primarily on the epididymal sperm making triptolide an attractive lead as a post-testicular male contraceptive.

IT 38748-32-2, Triptolide
RL: ADV (Adverse effect, including toxicity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(triptolide as male contraceptive acting on epididymal sperm with minimal adverse effects)

RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

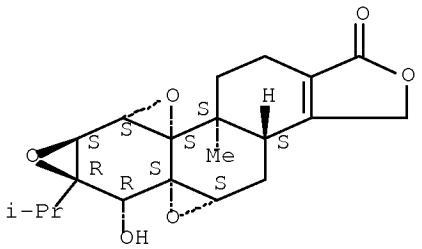
L117 ANSWER 4 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:432715 HCAPLUS Full-text
DOCUMENT NUMBER: 129:239641
TITLE: Triptolide combined with prednisone in treatment of nephrotic syndrome in children
AUTHOR(S): Zhang, Jiantao
CORPORATE SOURCE: Department of Medicine, Guangzhou Children's Hospital, Canton, 510120, Peop. Rep. China
SOURCE: Guangdong Yixue (1998), 19(3), 227
CODEN: GUYIEG; ISSN: 1001-9448
PUBLISHER: Guangdongsheng Yixue Qingbao Yanjiuso
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB 57 Children with nephrotic syndrome were received conventional prednisone therapy, among them, 23 cases were received addnl. triptolide therapy were observed Children received addnl. triptolide were obtained remission within 5 wk, and the children received conventional prednisone had 31/34 cases obtained remission within 5 wk and the 5 wk remission rate was 91%. The time of proteinuria turned neg., serum albumin raised to ≥ 30 g/L, blood cholesterol reduced to ≤ 8 mmol/L in the group received addnl. triptolide were 11.04±5.3, 17.3±6.51, 17.8±6.22 days, and the conventional prednisone group were 18.5±11.4, 21.8±10.4, 22.6±11 days resp., P< 0.05 and 0.01, resp. The recurrence rates were 4/23, 17.4% and 17/34, 50% within 2 yr. followed up, resp., P< 0.01. No significant adverse effect was observed in the children that received addnl. triptolide. The results suggest that addnl. triptolide in treatment of nephrotic syndrome in children accelerates the remission of the disease and reduces the recurrence rate with no significant adverse effect.

IT 38748-32-2, Triptolide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(triptolide combined with prednisone in treatment of nephrotic syndrome in children)

RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L117 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:262607 HCAPLUS Full-text
DOCUMENT NUMBER: 126:246818
TITLE: Tripterygium wilfordii hook F extracts and components, use for treatment of inflammation or an immune disorders with concomitant lack of steroidal effect, and screening method for glucocorticoid receptor ligands
INVENTOR(S): Lipsky, Peter E.; Tao, Xue Lian; Cai, Jian; Kovacs, William J.; Olsen, Nancy J.
PATENT ASSIGNEE(S): University of Texas System, USA
SOURCE: U.S., 53 pp., Cont.-in-part of U.S. Ser. No. 168,980.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5616458	A	19970401	US 1995-455906	19950531 <--
WO 9113627	A1	19910919	WO 1991-US1718	19910314 <--
W: AT, AU, BB, BG, BR, CA, CH, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MC, MG, MW, NL, NO, PL, RO, SD, SE, SU				
RW: AT, BE, BF, BJ, CF, CG, CH, CM, DE, DK, ES, FR, GA, GB, GR, IT, LU, ML, MR, NL, SE, SN, TD, TG				
AU 9175701	A	19911010	AU 1991-75701	19910314 <--
US 5294443	A	19940315	US 1992-862836	19920403 <--
US 5580562	A	19961203	US 1993-168980	19931217 <--
CA 2268099	A1	19980402	CA 1996-2268099	19960927 <--
AU 9673771	A	19980417	AU 1996-73771	19960927 <--
EP 1007066	A1	20000614	EP 1996-936024	19960927 <--
EP 1007066	B1	20051116		
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EP 1645281	A1	20060412	EP 2005-24950	19960927 <--
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US 5846742	A	19981208	US 1997-800867	19970214 <--
PRIORITY APPLN. INFO.:			US 1990-494113 B2	19900314 <--
			US 1992-862836 A2	19920403 <--
			US 1993-168980 A2	19931217 <--
			WO 1991-US1718 A	19910314 <--
			US 1995-455906 A3	19950531 <--

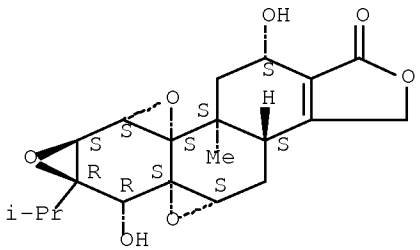
EP 1996-936024 A3 19960927 <--
WO 1996-US15550 A 19960927 <--

AB The present invention provides for the use of Tripterygium wilfordii Hook F exts. and purified components thereof in the treatment of inflammation or an immune disorder with concomitant lack of steroidal effect. Tripterygium wilfordii Hook F exts. (T2) bound to the glucocorticoid receptor and competitively inhibited glucocorticoid-mediated cellular processes (e.g. dexamethasone binding to the glucocorticoid receptor), glucocorticoid-mediated activation of target genes, dexamethasone- dependent cellular growth, with concomitant inhibition of cyclooxygenase-2 induction and inflammatory processes such as the production of prostaglandin E2. The T2 extract components triptolide and tripdiolide were effective inhibitors. The advantage provided by the methods of te invention is the treatment or prevention of inflammation and the concomitant lack of steroidal agonist effects and NSAID side effects. Conditions treatable by the present methods include inflammation and immune disorders including autoimmune disease. A screening method for substances having binding affinity for a glucocorticoid receptor is claimed with uses a Tripterygium wilfordii hook F preparation of glucocorticoid receptor-binding component thereof. In an open trial, the T2 extract was effective in the treatment of rheumatoid arthritis. A new method for the determination of triptolide and tripdiolide in Et acetate exts. of Tripterygium wilfordii hook F by HPLC is also presented.

IT 38647-10-8P, Tripdiolide 38748-32-2P, Triptolide
RL: ANT (Analyte); BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PUR (Purification or recovery); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(Tripterygium wilfordii hook F exts. and components, use for treatment of inflammation or immune disorder, and screening method for glucocorticoid receptor ligands)

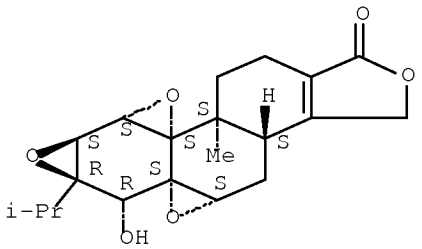
RN 38647-10-8 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6,10-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS,10S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



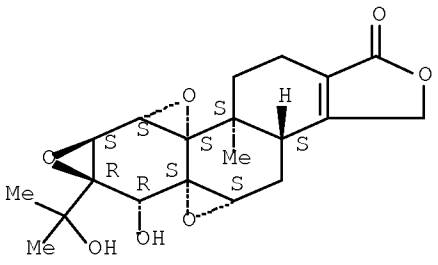
L117 ANSWER 6 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:800035 HCAPLUS Full-text
DOCUMENT NUMBER: 123:217965
TITLE: The antiinflammatory of triptolidenol activities
AUTHOR(S): Gu, Kexian; Zheng, Jiarun; Gao, Jiwei; Xu, Lanfang; Yu, Yanthua; Tang, Meiyu
CORPORATE SOURCE: Inst. of Dermatology, Chinese Academy of Medical Sciences, Nanjing, 210042, Peop. Rep. China
SOURCE: Zhongguo Yaolixue Tongbao (1994), 10(1), 54-7
CODEN: ZYTOE8; ISSN: 1001-1978
PUBLISHER: Anhui Yike Daxue Linchuan Yaoli Yanjiuso
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB The antiinflammatory effects of Triptolidenol (T9) isolated from Tripterygium Wilfordii (TW) were reported. The results indicated that T9 1.0,0.5 mg·kg-1 i.p. significantly inhibited the paw swelling induced by carrageenin and Freund's complete adjuvant in rats. T9 0.45.apprx.1.35 mg·kg-1 i.p. markedly suppressed the croton oil-induced ear swelling in mice. T9 0.8 mg·kg-1 i.p. significantly inhibited effusion and leukocytoplania of pleurisy caused by injection of carrageenin. T9 had an inhibitory effect on granuloma induced by cotton pellet, and decreased the content of PGE2 in plasma, but is had no effect on weight and vitamin C content of adrenal. It suggested that the antiinflammatory effects of T9 did not depend on pituitary-adrenal axis and its effects were not like steroids. The T9 antiinflammatory therapeutic index was 9.86. The results showed that T9 was one of the antiinflammatory active compds. in TW.

IT 99694-86-7, Triptolidenol
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(the antiinflammatory actions of triptolidenol from Tripterygium Wilfordii)

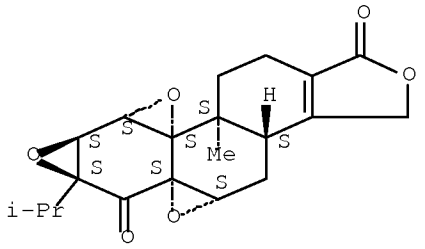
RN 99694-86-7 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-6a-(1-hydroxy-1-methylethyl)-8b-methyl-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



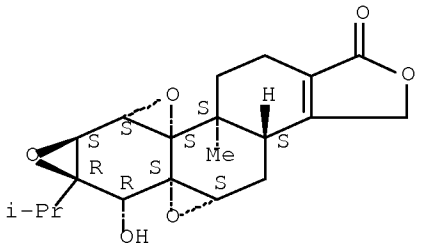
L117 ANSWER 7 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:184862 HCAPLUS Full-text
DOCUMENT NUMBER: 122:38953
TITLE: TLC identification of Leigongteng (Tripterygium wilfordii) and Kunmiminshanhaitang (T. hypoglaucum)
AUTHOR(S): Xia, Zhilin; Xu, Rongqing; Guo, Shunmin; Dang, Fuxiao
CORPORATE SOURCE: Fujian Inst. Medicinal Sci., Fuzhou, 350001, Peop. Rep. China
SOURCE: Zhongcaoyao (1994), 25(9), 464-5
CODEN: CTYAD8; ISSN: 0253-2670
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB The alkaloids and terpenes e.g. tripterine, triptophenolide, etc. of Leigongteng (Tripterygium wilfordii) and Kunmiminshanhaitang (T. hypoglaucum) were identified by TLC and discussed with regard to the quality control of the crude drugs.
IT 38647-11-9, Triptonide 38748-32-2, Triptolide
RL: ANT (Analyte); ANST (Analytical study)
(TLC identification of alkaloids and terpenes of Leigongteng (Tripterygium wilfordii) and Kunmiminshanhaitang (T. hypoglaucum))
RN 38647-11-9 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1,6(3H,6aH)-dione, 3b,4,4a,7a,7b,8b,9,10-octahydro-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6aS,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



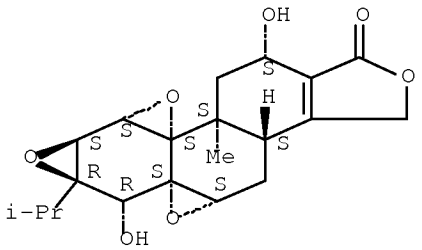
L117 ANSWER 8 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1994:187200 HCAPLUS Full-text
DOCUMENT NUMBER: 120:187200
TITLE: Studies on the male antifertility constituents of Tripterygum hypoglaucum (Levl.) Hutch
AUTHOR(S): Zhang, Zhengxing; Ding, Li; Qian, Shaozhen; An, Dengkui
CORPORATE SOURCE: Dep. of Pharm. Anal., China Pharm. Univ., Nanjing, 210009, Peop. Rep. China
SOURCE: Journal of Chinese Pharmaceutical Sciences (1993), 2(2), 144-7
CODEN: JCHSE4; ISSN: 1003-1057
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Fourteen compds. were isolated from T. hypoglycerus and identified as tripdiolide (I), triptolide, triptonoditerpenic acid, triptonoterpenol (II), 3-oxoolean-12-en-29-oic acid (II), oleanolic acid (IV), 3β,22α-hydroxy-Δ12-oleanen-29-oic acid (V), 3-acetoxy oleanolic acid, wilfolide A, wilforine, daucosterol (VI), β-sitosterol, 1-epicatechin and fumaric acid (VIII). III, IV and VII were discovered in the plants of genus Tripterygium for the first time. I, II, V, and VI were isolated from T. hypoglaucum for the first time. Pharmacol. expts. revealed that I and triptolide possess reversible male antifertility activity.

IT 38647-10-8, Tripdiolide 38748-32-2, Triptolide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(from Tripterygum hypoglaucum, male antifertility activity of)

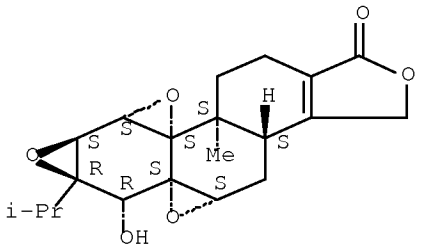
RN 38647-10-8 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6,10-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS,10S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



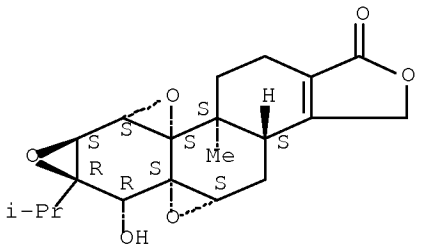
RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L117 ANSWER 9 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1993:531802 HCAPLUS Full-text
DOCUMENT NUMBER: 119:131802
TITLE: Effect of triptolide on reproductive endocrinology and dihydrotestosterone receptors in rats
AUTHOR(S): Wang, Ying; Sun, Yibin; Chen, Qiaoqin; Lu, Chunyan; Zong, Shudong; Qian, Zhijian
CORPORATE SOURCE: Dep. Pharmacol. Reprod. Biol., Natl. Res. Inst. Fam. Plann., Beijing, 100081, Peop. Rep. China
SOURCE: Journal of Chinese Pharmaceutical Sciences (1993), 2(1), 53-8
CODEN: JCHSE4; ISSN: 1003-1057
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Triptolide was given orally to adult male Sprague-Dawley rats at a dose of 75 μg/kg for 35 days. After 28 days of treatment, mating tests showed that all the drug-treated rats were infertile. At the end of drug treatment, the d. of caudal spermatozoa and the weight of epididymis were reduced. All the spermatozoa were immobile. There was no detectable damage of testicular spermatogenesis and epididymal epithelia in triptolide-treated rats. However, moderate and severe damage of spermatozoa were seen in the corpus and caudal epididymis. The contents of cytosolic and nuclear dihydrotestosterone (DHT) receptors in the caput and caudal epididymides increased insignificantly as compared with controls. However, cytosolic levels DHT receptors of the ventral prostate were elevated. The epididymal sperm damage suggests that one of the sites of action of triptolide might be the epididymis.
IT 38748-32-2, Triptolide
RL: BIOL (Biological study)
(as male contraceptive, epididymis as target in)
RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



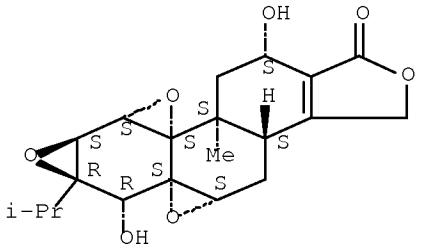
L117 ANSWER 10 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1992:658034 HCAPLUS Full-text
DOCUMENT NUMBER: 117:258034
TITLE: Studies with tissue cultures of the Chinese herbal plant Tripterygium wilfordii. Isolation of metabolites of interest in rheumatoid arthritis, immunosuppression, and male contraceptive activity
AUTHOR(S): Kutney, James P.; Hewitt, Gary M.; Lee, Gin; Piotrowska, Krystyna; Roberts, Malcolm; Rettig, Steven J.
CORPORATE SOURCE: Dep. Chem., Univ. British Columbia, Vancouver, BC, V6T 1Y6, Can.
SOURCE: Canadian Journal of Chemistry (1992), 70(5), 1455-80
CODEN: CJCHAG; ISSN: 0008-4042
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A detailed study of metabolites produced by the plant cell culture line of T. wilfordii, a Chinese herbal plant, is presented. Eighteen compds. within the diterpene and triterpene families were isolated and fully characterized. Of these, 5 are novel compds., and their structures were determined by a combination of spectral anal., chemical correlation and single crystal X-ray diffraction. The interest of these compds. in the treatment of rheumatoid arthritis, skin allergies, and for male contraception is noted.

IT 38647-10-8, Tripdiolide 38748-32-2, Triptolide
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(of Tripterygium wilfordii)

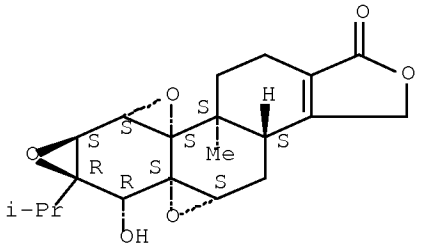
RN 38647-10-8 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6,10-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS,10S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

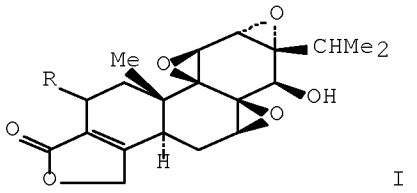


RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L117 ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1982:69240 HCAPLUS Full-text
DOCUMENT NUMBER: 96:69240
ORIGINAL REFERENCE NO.: 96:11385a,11388a
TITLE: Cytotoxic diterpenes triptolide, tripdiolide, and cytotoxic triterpenes from tissue cultures of Tripterygium wilfordii
AUTHOR(S): Kutney, James P.; Hewitt, Gary M.; Kurihara, Toshio; Salisbury, Phillip J.; Sindelar, Robert D.; Stuart, Kenneth L.; Townsley, Philip M.; Chalmers, William T.; Jacoli, Giulio G.
CORPORATE SOURCE: Dep. Chem., Univ. British Columbia, Vancouver, BC, V6T 1Y6, Can.
SOURCE: Canadian Journal of Chemistry (1981), 59(17), 2677-83
CODEN: CJCHAG; ISSN: 0008-4042
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



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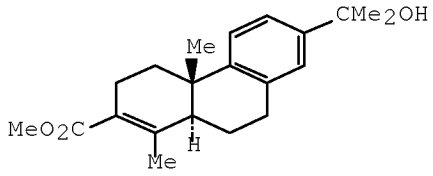

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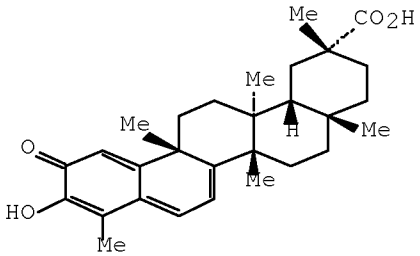

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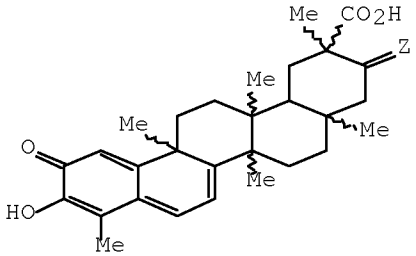


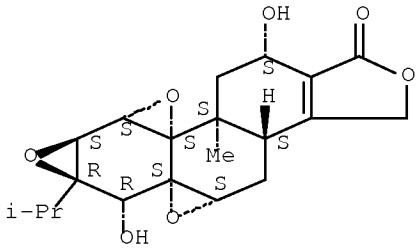
V

AB Plant tissue cultures of T. wilfordii produced the cytotoxic diterpene triepoxides tripdiolide I (R = OH) (II) and triptolide (I, R = H) in yields that were 16 and 3 times greater, resp., than those observed in the plant itself. Other diterpenes, dehydroabietic acid and a norabieta-3,8,11,13-tetraene-3-oic acid Me ester (III) were also isolated. Co-occurring in these cultures were the cytotoxic quinone-methides, celastrol (IV) and V (Z = H2, O). Other triterpenes produced were oleanolic acid and polpunonic acid. β-Sitosterol was also isolated. The proposed structure of III was confirmed by synthesis starting from dehydroabietic acid. Cyclotoxic data are reported, and a possible biosynthetic relationship among dehydroabietic acid, compound III, and tripdiolide II is presented.

IT 38647-10-8P 38748-32-2P
RL: PREP (Preparation)
(by tissue culture of Tripterygium wilfordii)

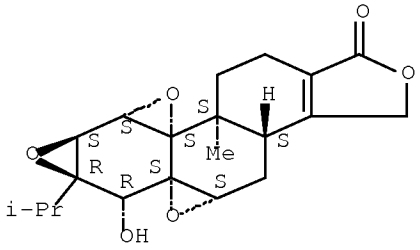
RN 38647-10-8 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6,10-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS,10S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L117 ANSWER 12 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1981:12755 HCAPLUS Full-text
DOCUMENT NUMBER: 94:12755
ORIGINAL REFERENCE NO.: 94:2141a,2144a
TITLE: Tripdiolide from tissue culture of Tripterygium

wilfordii

AUTHOR(S): Kutney, James P.; Beale, Michael H.; Salisbury, Phillip J.; Sindelar, Robert D.; Stuart, Kenneth L.; Worth, Brian R.; Townsley, Philip M.; Chalmers, William T.; Donnelly, Danielle J.; et al.

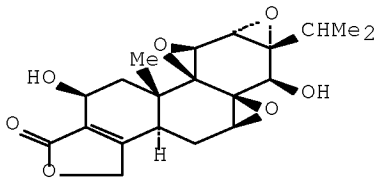
CORPORATE SOURCE: Dep. Chem., Univ. British Columbia, Vancouver, BC, V6T 1Y6, Can.

SOURCE: Heterocycles (1980), 14(10), 1465-7
CODEN: HTCYAM; ISSN: 0385-5414

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



I

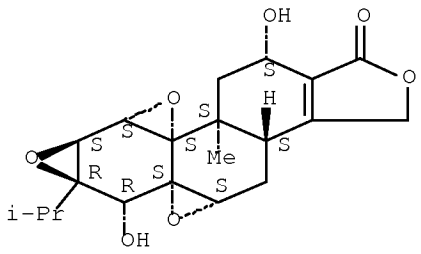
AB T. wilfordii Tissue-cultured cells yielded the neoplasm inhibitor tripdiolide (I) (yield 0.003% I, from 5 L of cells cultivated on a modified B-5 and PRL-4 suspension medium for 7 wk, yielding 4.8 of crude product). I was identified by mass spectrometry, NMR, and TLC comparisons with authentic samples. Also identified were β-sitosterol and celastrol.

IT 38647-10-8
RL: BIOL (Biological study)
(of Tripterygium wilfordii tissue cultures)

RN 38647-10-8 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6,10-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS,10S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



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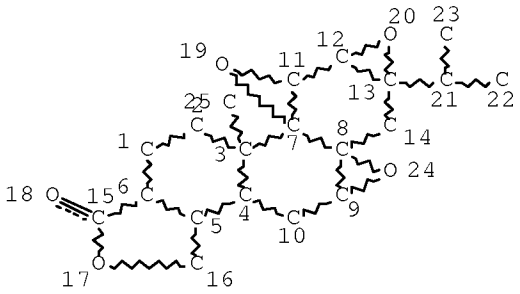
L108 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 25

STEREO ATTRIBUTES: NONE

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L111 551 SEA FILE=HCAPLUS ABB=ON PLU=ON L110
L112 77 SEA FILE=HCAPLUS ABB=ON PLU=ON L111(L)(?MEDIC? OR ?THERAP? OR ?DRUG? OR ?PHARMA?)
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L123 30 SEA FILE=HCAPLUS ABB=ON PLU=ON L122 AND (AY<2003 OR PY<2003 OR PRY<2003 OR PD=<JANUARY 27, 2002)
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L124 ANSWER 1 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:816434 HCAPLUS Full-text
DOCUMENT NUMBER: 142:329843
TITLE: Use of triptolide as inhibiting agent against platelet-derived growth factor increase and as arteriosclerosis preventive
INVENTOR(S): Hachida, Mitsuhiro
PATENT ASSIGNEE(S): Japan
SOURCE: Can. Pat. Appl., 29 pp.

CODEN: CPXXEB
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2277564	A1	20010113	CA 1999-2277564	19990713 <--

PRIORITY APPLN. INFO.: CA 1999-2277564 19990713 <--
OTHER SOURCE(S): MARPAT 142:329843
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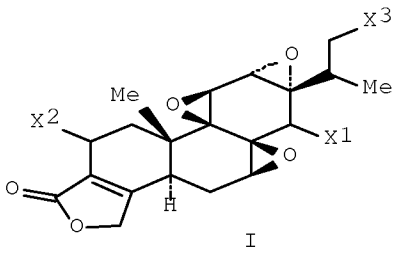

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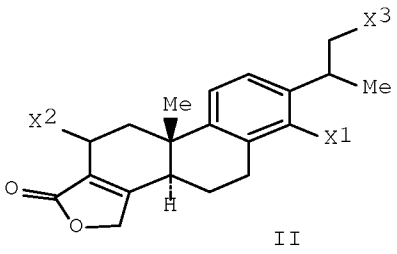


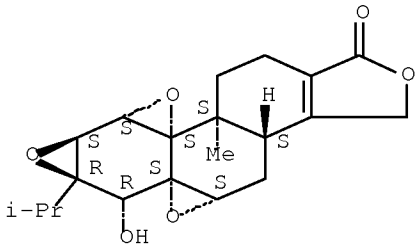
II

AB Disclosed is an inhibiting agent against platelet-derived growth factor increase, an arteriosclerosis preventive and therapeutic agent, and an arterial intimal thickening inhibiting agent, comprising as an active ingredient a diterpene I or II (X1, X2, X3 = OH, H) and their derivs. More specifically, triptolide was extracted from Tripterygium wilfordii Essence tablets and examined as an immunosuppressant for use after heart transplantation. The rejection inhibiting effect of triptolide was comparable to cyclosporin in the transplanted heart and excellent for its coronary arterial intimal thickening inhibiting effect.

IT 38748-32-2, Triptolide
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(activity of triptolide as inhibitor of platelet-derived growth factor increase, arteriosclerosis, arterial intimal thickening and as immunosuppressant after heart transplantation)

RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

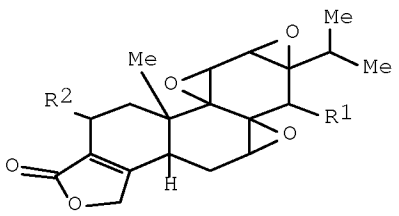
Absolute stereochemistry. Rotation (-).



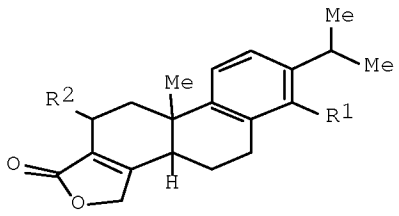
L124 ANSWER 2 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:492624 HCAPLUS Full-text
DOCUMENT NUMBER: 141:33789
TITLE: Apoptosis inducers containing diterpenes for synovial cells
INVENTOR(S): Kawai, Shinichi; Yamazaki, Ryuta
PATENT ASSIGNEE(S): St. Marianne Medical Unv., Japan; Yakult Honsha Co., Ltd.
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004168713	A	20040617	JP 2002-336972	20021120 <--
PRIORITY APPLN. INFO.:			JP 2002-336972	20021120 <--

OTHER SOURCE(S): MARPAT 141:33789
GI



I



II

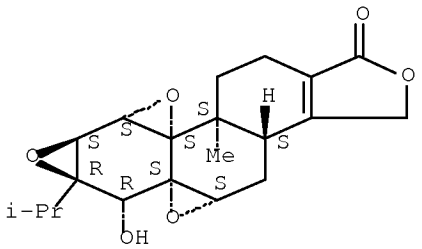
AB Title inducers contain diterpenes I or II (R1 = O, OH; R2 = H, OH) as active ingredients. Thus, triptolide induced DNA fragmentation, cell death, and reduced cell growth in a dose-dependent manner in synovial cells from a patient with rheumatic arthritis.

IT 38748-32-2, Triptolide
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(apoptosis inducers containing diterpenes for treatment of arthritis)

RN 38748-32-2 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



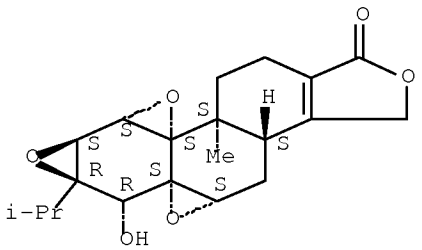
L124 ANSWER 3 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:84591 HCAPLUS Full-text
DOCUMENT NUMBER: 141:17166
TITLE: Inhibitory effect of triptolide on interleukin-12 gene expression and NF-AT activity in T lymphocyte of experimental autoimmune uveoretinitis
AUTHOR(S): Qiao, Zhi; Zhang, Lianghai; Liu, Chun; Liang, Gang
CORPORATE SOURCE: Department of Microbiology and Immunology, Medical College, Wuhan University, Wuhan, 430071, Peop. Rep. China
SOURCE: Zhongguo Yiyuan Yaoxue Zazhi (2002), 22(10), 601-603
CODEN: ZYYAEP; ISSN: 1001-5213
PUBLISHER: Zhongguo Yiyuan Yaoxue Zazhi Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB The effects and mechanisms of triptolide on the IL- 12 gene expression in T lymphocytes were studied in exptl. autoimmune uveoretinitis (EAU). The in situ hybridization (ISH) was adapted to explore the expression of IL-12 mRNA and the effects of triptolide in T lymphocyte of EAU; the activation of NF-AT in T lymphocyte of EAU was assayed by using electrophoretic mobility shift assay (EMSA). The rate decreased in EAU induced by S-Ag which was treated with triptolide. Triptolide could inhibit interleukin-12 gene expression. Triptolide could inhibit NE-AT activity.

IT 38748-32-2, Triptolide
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(inhibitory effect of triptolide on interleukin-12 gene expression and NF-AT activity in T lymphocyte of exptl. autoimmune uveoretinitis)

RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

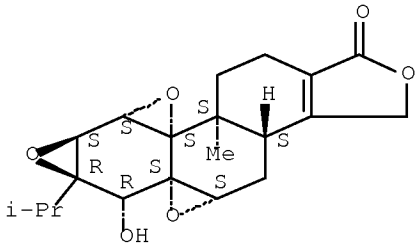


L124 ANSWER 4 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:820428 HCAPLUS Full-text
DOCUMENT NUMBER: 140:246466
TITLE: Inhibition of triptolide on correlative regulative factor of TH1 response of experimental autoimmune uveoretinitis
AUTHOR(S): Qiao, Zhi; Liu, Chun; Zhang, Lianghai
CORPORATE SOURCE: School of Medicine, Wuhan University, Wuhan, 430071, Peop. Rep. China
SOURCE: Wuhan Daxue Xuebao, Yixueban (2002), 23(4), 333-335
CODEN: WDXYAA
PUBLISHER: Wuhan Daxue Xuebao, Yixueban Faxingbu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB The levels of interferon γ (IFN-γ) and interleukin 12 (IL-12) were detected by ELISA. The situ hybridization (ISH) was used to explore the expression of IL-12 mRNA and the effects of triptolide (TP) in T lymphocyte of exptl. autoimmune uveoretinitis (EAU). The activation of nuclear factor-active T lymphocyte (NF-AT) in T lymphocyte of EAU was assayed by electrophoretic mobility shift assay (EMSA). The rate decreased in EAU induced by S-Ag, which was treated by TP. TP could decrease the levels of IFN-γ and IL-12 secreted by T lymphocytes of EAU. TP could inhibit IL-12 gene expression. TP could inhibit NF-AT activity. TP could inhibit the correlative regulative factors of TH1 response to cause incidence rate of EAU.

IT 38748-32-2, Triptolide
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(inhibition of triptolide on correlative regulative factor of TH1 response of exptl. autoimmune uveoretinitis)
RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L124 ANSWER 5 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:23373 HCAPLUS Full-text
DOCUMENT NUMBER: 138:78426
TITLE: Therapeutic composition of herbal extracts for treating autoimmune diseases
INVENTOR(S): Ren, Keyong

PATENT ASSIGNEE(S): Advanced Herbal Therapeutics, Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 32 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

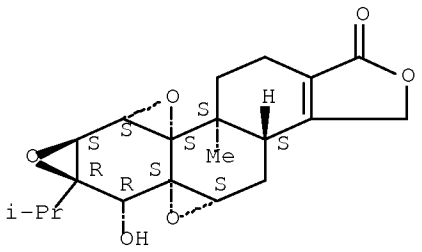
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003008024	A1	20030109	US 2001-989568	20011120 <--
PRIORITY APPLN. INFO.:			US 2001-273422P P	20010305 <--

AB A novel therapeutic composition comprises three novel herbal exts.: (i) Herba epimedium Extract, containing about 0.035-0.045% of triptolide, (ii) Rhizoma Drynaria fortunei Extract, containing about 40-50% of naringin, and (iii) Radix Tripterygium hypoglaucum Extract, containing about 10-20% of icariin. A new formulation, AHT-323, contains these three herbal exts. The novel therapeutic composition described in the present application can be used for treating autoimmune diseases such as rheumatoid arthritis, inflammatory disorders and pain.

IT 38748-32-2, Triptolide
RL: OCU (Occurrence, unclassified); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(herbal composition AHT-323 containing Drynaria, Epimedium, and Tripterygium
exts. for treatment of autoimmune diseases)

RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L124 ANSWER 6 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:672970 HCAPLUS Full-text
DOCUMENT NUMBER: 134:216959
TITLE: The effects of triptolide on HLA antigens expression of corneal epithelial cells induced by interferon-γ in vitro
AUTHOR(S): Zhao, Qi; Liu, Yiezi; Li, Quanfu
CORPORATE SOURCE: Guangzhou Military General Hospital, Canton, 510010, Peop. Rep. China
SOURCE: Eye Science (2000), 16(1), 34-37
CODEN: YAXUE3; ISSN: 1000-4432
PUBLISHER: Zhongshan Ophthalmic Center
DOCUMENT TYPE: Journal

LANGUAGE: English

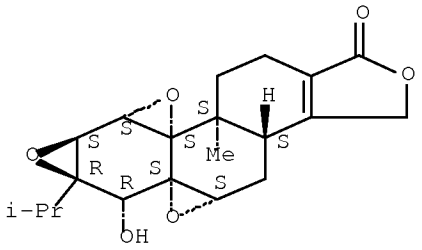
AB The objective was to observe the effects of immunosuppressants triptolide (TL) and cyclosporine A (CSA) on HLA antigens expression induced by interferon-γ (INF-γ) in vitro. By using an indirect immunofluorescent method and analyzing with ACAS-570, the abnormal HLA antigen expression by cultured corneal epithelial cells was induced by INF-γ. After incubation with one of the immunosuppressants (CSA, TL) for 72 h, the amount of HLA-ABC and HLA-DR antigens was measured. There was no difference between the group with CSA and the pos. control group without CSA. In contrast to CSA, TL dramatically inhibited INF-γ induced expression of HLA antigens of corneal epithelial cells, compared with the control group without TL. TL had direct inhibition on the expression of HLA-ABC and HLA-DR antigens induced by INF-γ in vitro, while CSA had no obvious inhibition.

IT 38748-32-2, Triptolide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(triptolide effect on HLA antigens expression by corneal epithelium induced by interferon-γ in relation to corneal transplant)

RN 38748-32-2 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L124 ANSWER 7 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:669759 HCAPLUS Full-text

DOCUMENT NUMBER: 134:141511

TITLE: Effect of Tripterygium wilfordii hook T4 monomer on proliferation and interleukin-6 production of synovial fibroblasts of patients with rheumatoid arthritis

AUTHOR(S): Guo, Yuan; Yu, Mengxue; Jiang, Yujuan; Song, Qinfang; Dong, Yi

CORPORATE SOURCE: Department of Clinical Immunology and Pheumatology, PUMC Hospital, PUMC and CAMS, Beijing, 100730, Peop. Rep. China

SOURCE: Zhongguo Yixue Kexueyuan Xuebao (2000), 22(2), 190-192
CODEN: CIHPDR; ISSN: 1000-503X

PUBLISHER: Zhongguo Yixue Kexueyuan

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

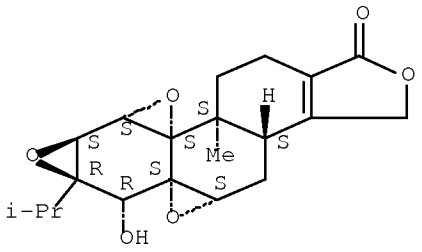
AB Tripterygium Wilfordii Hook multi-glycosides T2 has been widely used in China in treatment of RA. T4 was isolated from T2 and was reported much more efficient in anti-inflammatory and immune suppression than T2. This study was to investigate the effect of Tripterygium Wilfordii Hook T4 monomer on proliferation and interleukin-6 production of synovial fibroblasts of patients with rheumatoid arthritis. Synovium was obtained from patients with rheumatoid arthritis undergoing synovectomies or joint replacement. Cultures of synovial fibroblasts were established. After 3 generations, cultured synovial fibroblasts were stimulated with IL-1. Then 1.5 ng/mL, 5 ng/mL and 15 ng/mL T4 were added, and synovial fibroblasts were cultured in the presence of T4 for 48 h. Cell proliferation was assayed using MTT method. IL-6 level of supernatant was measured by ELISA. Proliferation of synovial fibroblasts was inhibited by T4. The proliferation inhibition effect of T4 was dose dependent and inhibition rate was 5.18%, 10.95% and 21.37%, resp. And T4 had no effect on IL-6 production by IL-1 stimulated synovial fibroblasts. T4 might control the disease activity of RA by inhibiting the proliferation of synoviocyte. And T4 might not influence the concentration of IL-6 in synovial fluid, as a central effect, since IL-6 has protective effect on articular cartilage.

IT 38748-32-2D, Triptolide, T4
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Tripterygium wilfordii glycoside T4 effects on proliferation of and interleukin-6 production by synovial fibroblasts in rheumatoid arthritis)

RN 38748-32-2 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

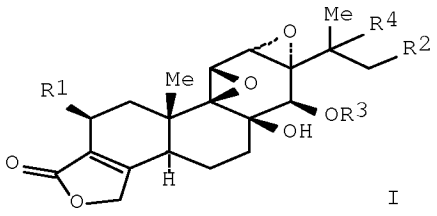
Absolute stereochemistry. Rotation (-).



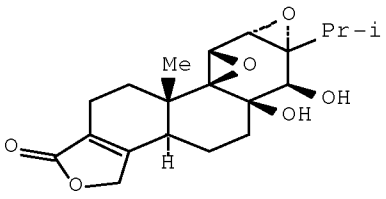
L124 ANSWER 8 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:808661 HCAPLUS Full-text
DOCUMENT NUMBER: 132:35929
TITLE: Preparation of triptolide derivatives useful in the treatment of autoimmune diseases
INVENTOR(S): Jung, Michel J.; Wickramaratne, Mahinda; Hepperle, Michael
PATENT ASSIGNEE(S): Hoechst Marion Roussel, Inc., USA
SOURCE: U.S., 19 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 6004999	A	19991221	US 1998-76433		19980512 <--
PRIORITY APPLN. INFO.:			US 1997-86233	P	19970523 <--
OTHER SOURCE(S):	MARPAT 132:35929				

GI



I



II

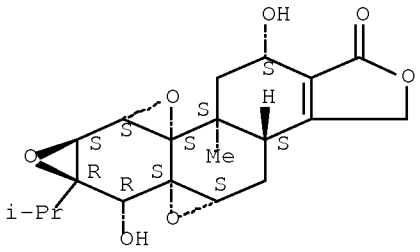
AB Novel triptolide derivs., e.g. of formula I [R1, R2 = H, OR5; R3, R5 = H, CO(CH2)nCO2H, amino acid; n = 2-6; R4 = H, OH], are prepared for treating a patient suffering from an autoimmune disease comprising administering to a patient an effective amount of the novel triptolide derivs. Thus, II is prepared from triptolide. The antiinflammatory activity in the rat model of adjuvant-induced arthritis of II was 90% inhibition at 10 mg/kg/day i.p.

IT 38647-10-8, Tripdiolide 38748-32-2, Triptolide
99694-86-7, Triptolidenol
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of triptolide derivs. useful in treatment of autoimmune diseases)

RN 38647-10-8 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6,10-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS,10S)- (CA INDEX NAME)

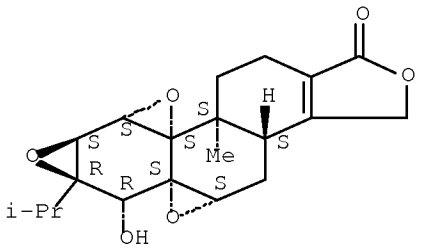
Absolute stereochemistry. Rotation (-).



RN 38748-32-2 HCAPLUS

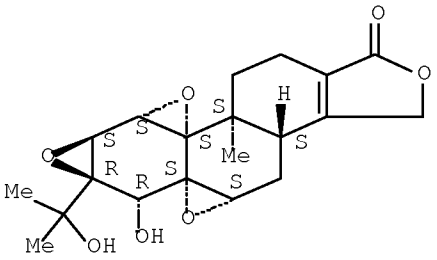
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 99694-86-7 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-6a-(1-hydroxy-1-methylethyl)-8b-methyl-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.

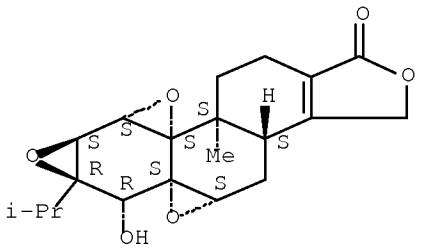


REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L124 ANSWER 9 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:733729 HCAPLUS Full-text
DOCUMENT NUMBER: 132:246075
TITLE: Inhibitory effect of triptolide on platelet derived growth factor-A and coronary arteriosclerosis after heart transplantation
AUTHOR(S): Hachida, M.; Lu, H.; Zhang, X.; Saito, S.; Furutani, Y.; Matsuoka, R.; Hoshi, H.; Koyanagi, H.
CORPORATE SOURCE: Heart Institute of Japan, Department of Cardiovascular Surgery, Tokyo Women's Medical College, Tokyo, Japan
SOURCE: Transplantation Proceedings (1999), 31(7), 2719-2723
CODEN: TRPPA8; ISSN: 0041-1345
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In rats, the authors found a remarkable attenuation of graft coronary arteriosclerosis and platelet derived growth factor-A mRNA expression in cardiac allograft in the triptolide-treated groups. Therefore, triptolide might be a useful agent for prevention and treatment of graft coronary arteriosclerosis.
IT 38748-32-2, Triptolide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES

(Uses)
(inhibitory effect of triptolide on platelet derived growth factor-A and coronary arteriosclerosis after heart transplantation)
RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

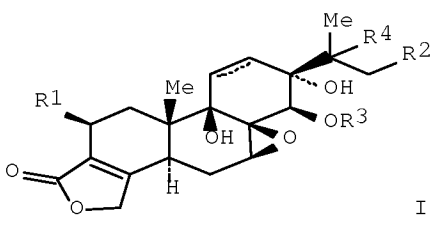


REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L124 ANSWER 10 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:686713 HCAPLUS Full-text
DOCUMENT NUMBER: 131:299577
TITLE: Preparation of triptolide derivatives useful in the treatment of autoimmune diseases
INVENTOR(S): Jung, Michel J.; Wickramaratne, Mahinda; Hepperle, Michael
PATENT ASSIGNEE(S): Hoechst Marion Roussel, Inc., USA
SOURCE: U.S., 25 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 5972998	A	19991026	US 1998-76591		19980512 <--
PRIORITY APPLN. INFO.:			US 1997-108155	P	19970523 <--

OTHER SOURCE(S): MARPAT 131:299577
GI



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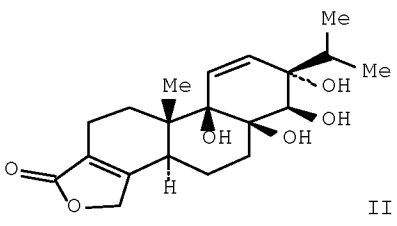


II

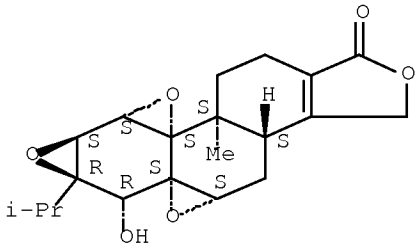
AB Triptolide derivs., e.g. of formula I [R1, R2 = H, (substituted) OH; R3 = H, CO(CH2)nCO2H, amino acid; n = 2-6; R4 = H, OH], are prepared for treatment of a patient suffering from an autoimmune disease. Thus, triptolide is transformed into II. The antiinflammatory activity of II in the rat model of adjuvant-induced arthritis showed 83% inhibition at 2 mg/kg/day.

IT 38748-32-2, Triptolide
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of triptolide derivs. for the treatment of autoimmune diseases)

RN 38748-32-2 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L124 ANSWER 11 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:671601 HCAPLUS Full-text
DOCUMENT NUMBER: 132:150538
TITLE: Triptolide induced apoptosis of eosinophils in airway of allergic guinea pigs
AUTHOR(S): Wang, Changzheng; Lai, Kefang; Guo, Xiaoming
CORPORATE SOURCE: Xinqiao Hospital, Third Military Medical University, Chungking, 400037, Peop. Rep. China
SOURCE: Journal of Chinese Pharmaceutical Sciences (1999), 8(3), 167-170
CODEN: JCHSE4; ISSN: 1003-1057
PUBLISHER: Beijing Medical University, School of Pharmaceutical Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English

AB In this study, the effects of triptolide extract from a Chinese herb on eosinophilic apoptosis in allergic guinea pigs was explored. Triptolide could inhibit eosinophilic apoptosis and the expression of bcl-2 in eosinophils from allergic guinea pig airways and would be of help in treatment of airway inflammation in allergic diseases such as asthma.

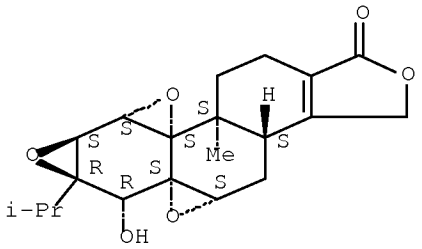
IT 38748-32-2, Triptolide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(triptolide-induced apoptosis of eosinophils in airway of allergic guinea pigs)

RN 38748-32-2 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one,

3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L124 ANSWER 12 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:547222 HCAPLUS Full-text
DOCUMENT NUMBER: 131:281191
TITLE: Downregulation of lymphocyte activity and human synovial fibroblast growth in rheumatoid arthritis by triptolide
AUTHOR(S): Tong, Kwok-Keung; Yang, Dan; Chan, Eric Yuk-Tat; Chiu, Peter Kwong-Yuen; Yau, Kam-Shing; Lau, Chak-Sing
CORPORATE SOURCE: Division of Rheumatology, Department of Medicine, The University of Hong Kong, Hong Kong, Peop. Rep. China
SOURCE: Drug Development Research (1999), 47(3), 144-153
CODEN: DDREDK; ISSN: 0272-4391
PUBLISHER: Wiley-Liss, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The antirheumatic effects of triptolide, a purified component derived from a Chinese herb, Tripterygium wilfordii Hook f. (TWH), was examined Peripheral blood mononuclear cells (PBMC), T cells, or human synovial fibroblasts isolated from healthy controls or rheumatoid arthritis (RA) patients were cultured in vitro in the absence or presence of triptolide. Estimated by ELISA, Ig synthesis in pokeweed mitogen or Staphylococcus aureus Cowan 1 strain stimulated PBMC was significantly impaired by triptolide in a concentration-dependent manner (1-10 nM). Similarly, proliferation of PBMC in response to phytohemagglutinin (PHA-M), interleukin-2, or phorbol 12-myristate 13-acetate (PMA)/ionomycin estimated by incorporation of [3H]-thymidine was inhibited by triptolide. Cell viability was not affected at the immunosuppressive concns. of triptolide. No abnormality of intracellular Ca2+ flux as estimated by flow cytometry was detected in PHA-M-stimulated T cells by triptolide. Biosynthesis of cellular protein estimated by incorporation of [3H]-leucine was significantly reduced in PMA/ionomycin stimulated PBMC by triptolide at concns. above 7.5 nM. Proliferation of human synovial fibroblasts as estimated by crystal violet staining was significantly inhibited by triptolide at 30 nM. The present data demonstrate that triptolide is a potent immunosuppressant and has an antiproliferative effect on synovial fibroblast. The immunosuppressive activity of triptolide is not due to cytotoxicity, nor is it targeted at the initial membrane signal transduction process and the generation of second messengers. Inhibition of cellular protein synthesis by triptolide during lymphocyte activation may account for its inhibitory activity. The precise mechanism of action of

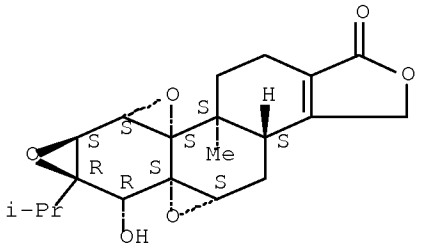
triptolide needs to be defined in order to develop improved versions of the mol. for the potential treatment of RA.

IT 38748-32-2, Triptolide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(downregulation of lymphocyte activity and human synovial fibroblast growth in rheumatoid arthritis by triptolide)

RN 38748-32-2 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L124 ANSWER 13 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:789153 HCAPLUS Full-text
DOCUMENT NUMBER: 130:25207
TITLE: synthesis and activity of triptolide derivatives useful in the treatment of autoimmune diseases
INVENTOR(S): Jung, Michael J.; Wickramaratne, Mahinda; Hepperle, Michael
PATENT ASSIGNEE(S): Hoechst Marion Roussel, Inc., USA
SOURCE: PCT Int. Appl., 62 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9852951	A1	19981126	WO 1998-US8470	19980427 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2287977	A1	19981126	CA 1998-2287977	19980427 <--
AU 9872607	A	19981211	AU 1998-72607	19980427 <--
AU 741917	B2	20011213		
EP 983275	A1	20000308	EP 1998-919928	19980427 <--

EP 983275		B1	20020828			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO						
BR 9809678		A	20000711	BR 1998-9678		19980427 <--
HU 2000003398		A2	20010328	HU 2000-3398		19980427 <--
HU 2000003398		A3	20010928			
NZ 500762		A	20010831	NZ 1998-500762		19980427 <--
JP 2001525851		T	20011211	JP 1998-550377		19980427 <--
AT 222910		T	20020915	AT 1998-919928		19980427 <--
ES 2178207		T3	20021216	ES 1998-919928		19980427 <--
PT 983275		T	20030131	PT 1998-919928		19980427 <--
ZA 9804174		A	19981123	ZA 1998-4174		19980518 <--
TW 434235		B	20010516	TW 1998-87107719		19980519 <--
NO 9905723		A	20000121	NO 1999-5723		19991122 <--
MX 9910776		A	20000430	MX 1999-10776		19991122 <--
HK 1026096		A1	20030214	HK 2000-105108		20000816 <--
PRIORITY APPLN. INFO.:				US 1997-862488	A	19970523 <--
				WO 1998-US8470	W	19980427 <--

OTHER SOURCE(S): MARPAT 130:25207
GI

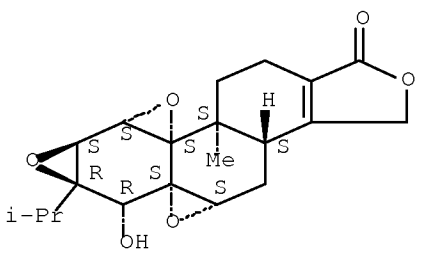
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Syntheses of triptolide derivs. (I) [R1, R2 = H, OR5; R3 = H, CO(CH2)nCO2H, suitable amino acid; R4 = H, OH; R5 = H, CO(CH2)nCO2H, suitable amino acid; n = 2-6], (II) [X = I, Br, Cl, F, CN], and (III) for use in the treatment of auto-immune diseases are described. Thus, I (R1-R4 = H) is prepared by reduction of triptolide with sodium cyanoborohydride and shows and IC50 of 36 ng/mL in IL-2 assay and a 90% inhibition in anti-inflammatory activity in adjuvant-induced arthritis assay.

IT 38748-32-2, Triptolide 99694-86-7, Triptolidenol 139713-80-7, 16-Hydroxytriptolide
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis and activity of triptolide derivs. useful in the treatment of autoimmune diseases)

RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

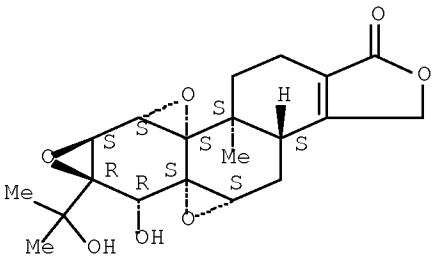
Absolute stereochemistry. Rotation (-).



RN 99694-86-7 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one,

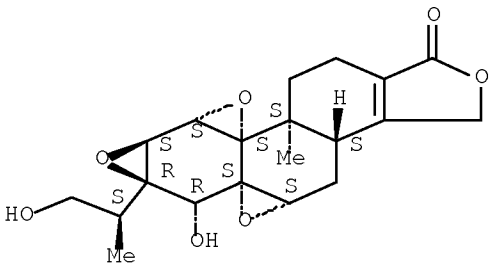
3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-6a-(1-hydroxy-1-methylethyl)-8b-methyl-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



RN 139713-80-7 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-6a-[(1S)-2-hydroxy-1-methylethyl]-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L124 ANSWER 14 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:789139 HCAPLUS Full-text
DOCUMENT NUMBER: 130:25206
TITLE: synthesis and activity of triptolide derivatives useful in the treatment of autoimmune diseases
INVENTOR(S): Jung, Michael J.; Wickramaratne, Mahinda; Hepperle, Michael
PATENT ASSIGNEE(S): Hoechst Marion Roussel, Inc., USA
SOURCE: PCT Int. Appl., 74 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

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             KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
             NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
             UA, UG, UZ, VN, YU, ZW
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
             CM, GA, GN, ML, MR, NE, SN, TD, TG
     CA 2288327           A1    19981126    CA 1998-2288327         19980427 <--
     AU 9873634           A     19981211    AU 1998-73634           19980427 <--
     AU 741209            B2    20011122
     EP 983256            A1    20000308    EP 1998-920897          19980427 <--
     EP 983256            B1    20040310
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
     BR 9809673           A     20000711    BR 1998-9673            19980427 <--
     HU 2000003244        A2    20010328    HU 2000-3244            19980427 <--
     HU 2000003244        A3    20010928
     NZ 500699            A     20010831    NZ 1998-500699          19980427 <--
     JP 2002500647        T     20020108    JP 1998-550382          19980427 <--
     AT 261434            T     20040315    AT 1998-920897          19980427 <--
     ES 2213279           T3    20040816    ES 1998-920897          19980427 <--
     ZA 9804177           A     19981123    ZA 1998-4177            19980518 <--
     TW 462966            B     20011111    TW 1998-87107730        19980519 <--
     NO 9905722           A     20000121    NO 1999-5722            19991122 <--
     MX 9910775           A     20000430    MX 1999-10775           19991122 <--
     HK 1025954           A1    20040716    HK 2000-105090          20000815 <--
PRIORITY APPLN. INFO.:                       US 1997-862489      A   19970523 <--
                                             WO 1998-US8562      W   19980427 <--
OTHER SOURCE(S):         MARPAT 130:25206
GI
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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

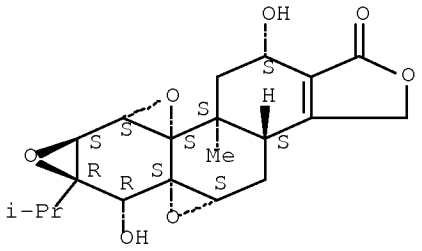
AB Syntheses of triptolide derivs. (I) [R1, R2 = H, OR5; R3 = H, CO(CH2)nCO2H, suitable amino acid; R4 = H, OH; R5 = H, CO(CH2)nCO2H, suitable amino acid; n = 2-6], (II), and (III) for use in the treatment of auto-immune diseases are described. Thus, II (R1-R4 = H) is prepared by reduction of triptolide with sodium cyanoborohydride and shows and IC50 of 14 ng/mL in IL-2 assay and a 83% inhibition in anti-inflammatory activity in adjuvant-induced arthritis assay.

IT 38647-10-8, Tripdiolide 38748-32-2, Triptolide
99694-86-7, Triptolidenol 139713-80-7,
16-Hydroxytriptolide
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis and activity of triptolide derivs. useful in the treatment of autoimmune diseases)

RN 38647-10-8 HCAPLUS

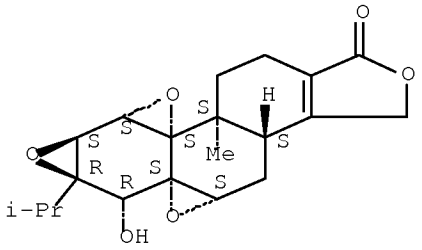
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6,10-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS,10S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



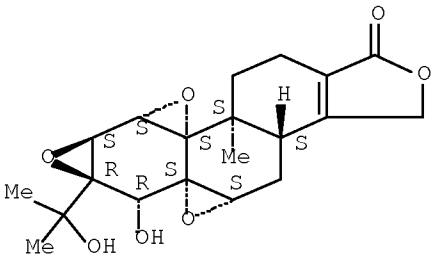
RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



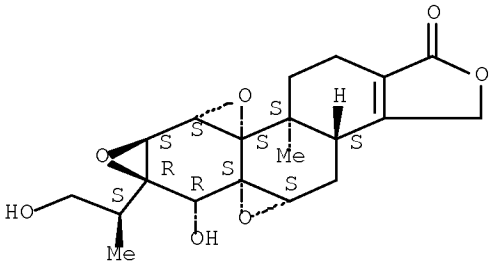
RN 99694-86-7 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-6a-(1-hydroxy-1-methylethyl)-8b-methyl-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



RN 139713-80-7 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-6a-[(1S)-2-hydroxy-1-methylethyl]-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

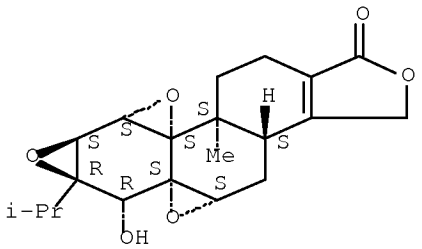
L124 ANSWER 15 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:760314 HCAPLUS Full-text
DOCUMENT NUMBER: 130:166876
TITLE: T cell vaccination against xenocorneal transplant rejection
AUTHOR(S): Wang, Jin; Tiao, Jizhi; Ding, Wei; Li, Xhang; Wang, Xiaoning
CORPORATE SOURCE: 454th Hospital PLA, Nanjing, 210002, Peop. Rep. China
SOURCE: Jiefangjun Yixue Zazhi (1998), 23(1), 45-47
CODEN: CFCHBN; ISSN: 0577-7402
PUBLISHER: Jenminjun Chubanshe
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB The expts. in vitro on T cell vaccination against the rejection of cornea and lymphocyte of xenograft demonstrated that Guinea pig antigen could induce the specific proliferation of lymphocytes of Wistar rat. T cell vaccination could induce anti-idiotypic response in vaccinated mice, which involved both CD4+ and CD8+ subsets. Specific tolerance to Guinea pig tissue antigen was achieved by T cell vaccination in Wistar rat. Comparative experiment between T cell vaccination, CsA, and triptolide in vivo against a xenocorneal graft rejection showed that T cell vaccination approximated to CsA, but was more effective than triptolide in prolonging the survival period of xencornea in Wistar rat.

IT 38748-32-2, Triptolide
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(T cell vaccination against xenocorneal transplant rejection in rats)

RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



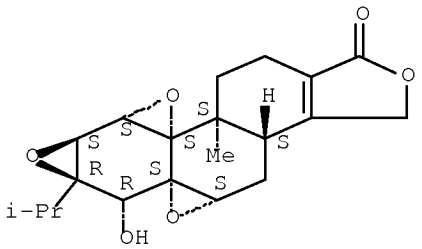
L124 ANSWER 16 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:635004 HCAPLUS Full-text
DOCUMENT NUMBER: 129:339651
TITLE: Inhibition of type II collagen-induced arthritis in rats by triptolide
AUTHOR(S): Gu, Wen-Zhen; Brandwein, Sydney R.
CORPORATE SOURCE: Abbott Laboratories, Abbott Park, IL, 60064, USA
SOURCE: International Journal of Immunopharmacology (1998), 20(8), 389-400
CODEN: IJIMDS; ISSN: 0192-0561
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The effects of purified triptolide, a diterpenoid triepoxide compound derived from the Chinese traditional anti-rheumatic medicinal plant extract, Tripterygium wilfordii Hook f (TWHf), were determined in type II collagen-induced arthritis (CIA) in rats. Lewis rats were immunized with bovine type II collagen and treated with purified triptolide 0.1 mg/kg/day or control (vehicle for triptolide) by daily gavage feedings for 28 days. Triptolide was well-tolerated with no evidence of toxicity. Treatment with triptolide resulted in significant delay in time to onset of arthritis, as well as significantly decreased arthritis incidence, clin. arthritis severity score, histopathol. arthritis severity score, and in vivo cell-mediated immunity to collagen. Triptolide appeared to be a potent immunomodulatory inhibitor of CIA in rats and this may account for the previously observed anti-rheumatic properties of crude exts. of TWHf, although more extensive studies will be needed to confirm these effects.

IT 38748-32-2, Triptolide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(inhibition of type II collagen-induced arthritis in rats by triptolide)

RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

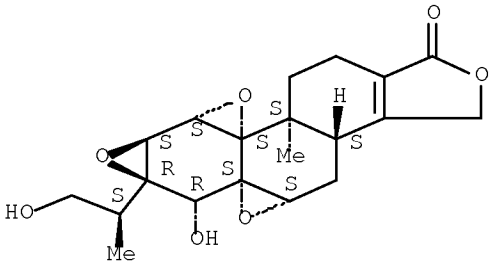
L124 ANSWER 17 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:694873 HCAPLUS Full-text
DOCUMENT NUMBER: 128:525
TITLE: Antifertility effect of 16-hydroxytriptolide on male rats
AUTHOR(S): Ling, Dan; Ye, Weisan; Guo, Yan; Cui, Li; Ma, Pengcheng; Yan, Wei
CORPORATE SOURCE: Institute of Basic Medical Sciences, Chinese Academy of Medical Sciences, Beijing, 100005, Peop. Rep. China
SOURCE: Jiepou Xuebao (1997), 28(2), 214-217
CODEN: CPHPA5; ISSN: 0529-1356
PUBLISHER: Zhongguo Jiepou Xuehui
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB Male rats were fed with 16-Hydroxytriptolide (L2) at high concentration (0.12 mg/kg/d) for 4 wk, and their spermatogenic cells fell off. When the dosages were moderate (0.06 mg/kg/d) for 4 wk, L2 inhibited male fertility but did not damage the spermatogenic cells. When the dosages were low (0.03 mg/kg/d) for 4 wk, L2 has no effects on male rat fertility. At moderate dosage (0.06 mg/kg/d) for 8 wk, L2 exerted very strong antifertility effect for all exptl. rats, the sperm motility was zero, the sperm number was decreased, seminiferous tubule epithelium fell off or formed large multinuclear cells, but rats' liver and kidney were not damaged.

IT 139713-80-7, 16-Hydroxytriptolide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antifertility effect of 16-hydroxytriptolide on male rats)

RN 139713-80-7 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-6a-[(1S)-2-hydroxy-1-methylethyl]-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



L124 ANSWER 18 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:365705 HCAPLUS Full-text
DOCUMENT NUMBER: 125:26268
TITLE: Composition and method for immunotherapy
INVENTOR(S): Weidmann, Tien-Wen Tao; Jin, Renling; Wang, Jian
PATENT ASSIGNEE(S): Pharmagenesis, Inc., USA
SOURCE: PCT Int. Appl., 50 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

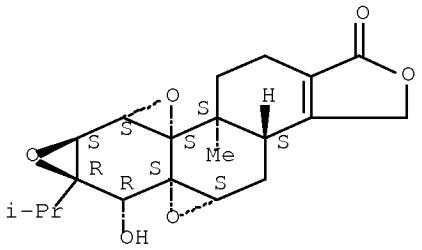
PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 9608262	A1	19960321	WO 1995-US11645		19950915 <--
W: AU, CA, CN, JP					
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE					
US 5759550	A	19980602	US 1995-484782		19950607 <--
AU 9536317	A	19960329	AU 1995-36317		19950915 <--
PRIORITY APPLN. INFO.:			US 1994-307948	A	19940915 <--
			US 1995-484206	A	19950607 <--
			US 1995-484407	A	19950607 <--
			US 1995-484782	A	19950607 <--
			US 1993-58321	B2	19930506 <--
			US 1994-222853	B2	19940405 <--
			US 1994-252953	B2	19940602 <--
			WO 1995-US11645	W	19950915 <--

AB An improved method for suppressing graft rejection in a host subject is disclosed. The method, as applied to allograft rejection, includes administering an immunosuppressant compound (e.g., cyclosporin A) in an amount substantially below that required for effective suppression of allograft rejection, when the compound is administered alone. The suppressive effect of the compound is potentiated by administration of an ethanolic extract of Tripterygium wilfordii or a purified triptolide component thereof. The method as applied to xenograft rejection, includes administering an immunosuppressant drug, where the drug or the amount of drug administered is, by itself, ineffective to suppress xenograft rejection. Effective xenograft suppression is achieved by also administering an ethanolic extract of Tripterygium wilfordii or a purified triptolide component thereof.

IT 38748-32-2, Triptolide 139713-80-7, 16-Hydroxytriptolide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(inhibition of graft rejection and graft-vs.-host disease by

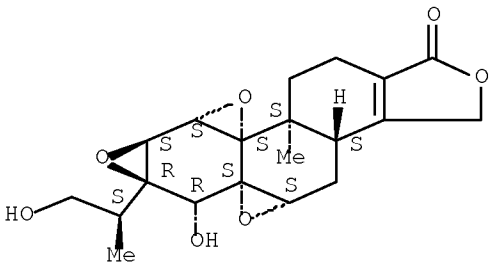
immunosuppressants and Tripterygium wilfordii components)
RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 139713-80-7 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-6a-[(1S)-2-hydroxy-1-methylethyl]-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



L124 ANSWER 19 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:982066 HCAPLUS Full-text
DOCUMENT NUMBER: 124:75898
TITLE: Effect of Tripterygium wilfordii PAP patches (TWPP) on adjuvant arthritis in rats
AUTHOR(S): Ji, Hui; Sun, Bei; Li, Naisan; Xie, Qikun
CORPORATE SOURCE: Department of Pharmacology, China Pharmaceutical University, Nanjing, 210009, Peop. Rep. China
SOURCE: Zhongguo Yaoke Daxue Xuebao (1995), 26(4), 223-5
CODEN: ZHYXE9; ISSN: 1000-5048
PUBLISHER: Zhongguo Yaoke Daxue
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB Adjuvant arthritis in rats was induced by Frend's complete adjuvant. The secondary reactions including swelling degree in left-hind feet, changes of front legs, ears and tail, thymus and spleen in indexes as indicators in rats treated with TWPP containing triptolide. The results showed that significant

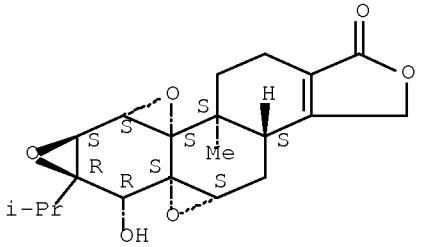
effect of TWPP on adjuvant arthritis in rats and the effect was superior to that of tablets and exts. at the same dose ($p < 0.05$).

IT 38748-32-2, Triptolide
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(effect of Tripterygium wilfordii PAP patches on adjuvant arthritis in rats)

RN 38748-32-2 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L124 ANSWER 20 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:761849 HCAPLUS Full-text
DOCUMENT NUMBER: 123:237793
TITLE: Preparation methods of diterpene lactones as antifertility agents
INVENTOR(S): Qian, Shoa Zhen; Zheng, Jia Run; Lu, Xie Yu; Ma, Peng Cheng; Zhang, Chong Pu; Chen, Yun; Gu, Ke Xian; Xu, Wen Xan; Zhang, Zheng Xing; et al.
PATENT ASSIGNEE(S): Jiangsu Family Planning Institute, Peop. Rep. China; China Pharmaceutical University; Institute of Dermatology, Chinese Academy of Medical Sciences
SOURCE: U.S., 8 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE	
US 5430054	A	19950704	US 1990-629411		19901218	<--
CN 1052859	A	19910710	CN 1989-105432		19891222	<--
CN 1052860	A	19910710	CN 1989-105433		19891222	<--
CN 1052861	A	19910710	CN 1989-105434		19891222	<--
CN 1060845	A	19920506	CN 1990-105750		19901013	<--
PRIORITY APPLN. INFO.:			CN 1989-105432	A	19891222	<--
			CN 1989-105433	A	19891222	<--
			CN 1989-105434	A	19891222	<--
			CN 1990-105750	A	19901013	<--

OTHER SOURCE(S): MARPAT 123:237793

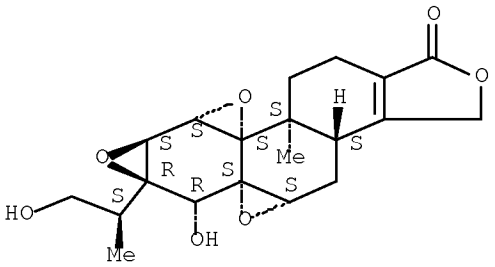
AB Methods for preparing a male antifertility agent, a diterpene lactone, from Tripterygium are described. Diterpene lactones, tripchlorolide, 16-hydroxytriptolide, chloro- and dichlorotriptolides, and triptoditerpenic acids

A and B were isolated from Tripterygium wilfordii and purified by chromatog. and identified by spectral methods.

IT 139713-80-7, 16-HydroxyTriptolide
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(diterpene lactones of Tripterygium as antifertility agents)

RN 139713-80-7 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-6a-[(1S)-2-hydroxy-1-methylethyl]-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

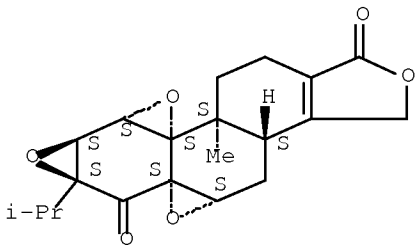
Absolute stereochemistry.



IT 38647-11-9, Triptonide 99694-86-7, Triptolidenol
139601-47-1, Triptolid-16-oic acid
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(diterpene lactones of Tripterygium as antifertility agents)

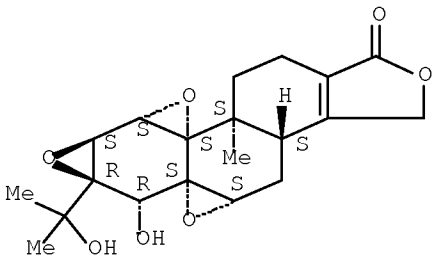
RN 38647-11-9 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1,6(3H,6aH)-dione, 3b,4,4a,7a,7b,8b,9,10-octahydro-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6aS,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.

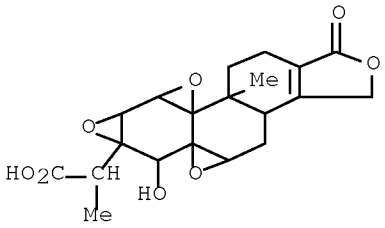


RN 99694-86-7 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-6a-(1-hydroxy-1-methylethyl)-8b-methyl-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



RN 139601-47-1 HCAPLUS
CN Triptolid-16-oic acid (9CI) (CA INDEX NAME)



L124 ANSWER 21 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:316074 HCAPLUS Full-text
DOCUMENT NUMBER: 122:103948
TITLE: Composition containing 16-hydroxytriptolide and immunosuppressant for treating transplantation rejection
INVENTOR(S): Jin, Renling; Wiedmann, Tien Wen
PATENT ASSIGNEE(S): Pharmagenesis, Inc., USA
SOURCE: PCT Int. Appl., 47 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 9426265	A1	19941124	WO 1994-US4990		19940505 <--
W: AU, CA, CN, JP					
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE					
AU 9468261	A	19941212	AU 1994-68261		19940505 <--
PRIORITY APPLN. INFO.:			US 1993-58321	A	19930506 <--
			US 1994-222853	A	19940405 <--
			WO 1994-US4990	W	19940505 <--

AB A composition containing 16-hydroxytriptolide and an immunosuppressant for use in immunosuppression therapy is disclosed. The immunosuppressant drug included in the composition is selected from cyclosporin A, FK506, azathioprine, methotrexate, rapamycin, mycophenolic acid, and a glucocorticoid. The composition is particularly useful for in treating

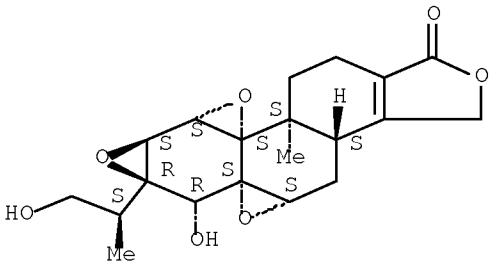
transplantation rejection, graft vs. host disease, or autoimmune disease. In example, 16-hydroxytriptolide was purified from air-dried root xylem of Tripterygium wilfordii plants, characterized, and evaluated for its activity in suppressing lymphocytes, inhibiting cytokine production and action of interleukin 1 and 2 on thymocytes, and potential cytotoxicity.

IT 139713-80-7P
RL: PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(composition containing 16-hydroxytriptolide and immunosuppressant for treating transplantation rejection)

RN 139713-80-7 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-6a-[(1S)-2-hydroxy-1-methylethyl]-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



IT 160625-88-7 160625-89-8 160625-90-1
160625-91-2 160625-92-3 160625-93-4
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(composition containing 16-hydroxytriptolide and immunosuppressant for treating transplantation rejection)

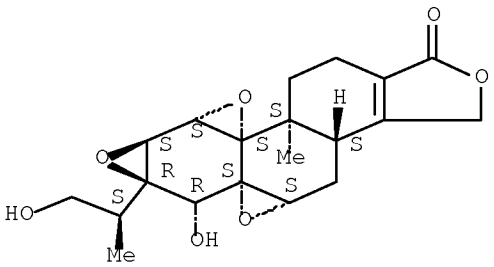
RN 160625-88-7 HCAPLUS

CN Cyclosporin A, mixt. with (15S)-16-hydroxytriptolide (9CI) (CA INDEX NAME)

CM 1

CRN 139713-80-7
CMF C20 H24 O7

Absolute stereochemistry.

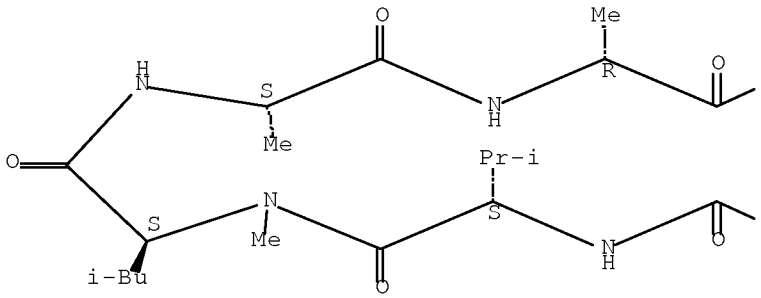


CM 2

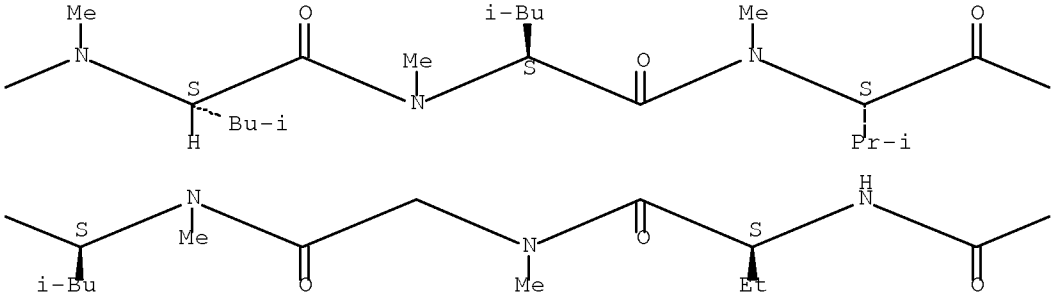
CRN 59865-13-3
CMF C62 H111 N11 O12

Absolute stereochemistry.
Double bond geometry as shown.

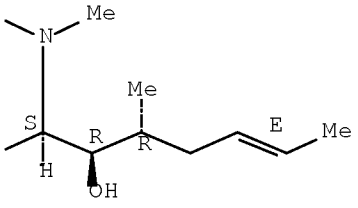
PAGE 1-A



PAGE 1-B



PAGE 1-C

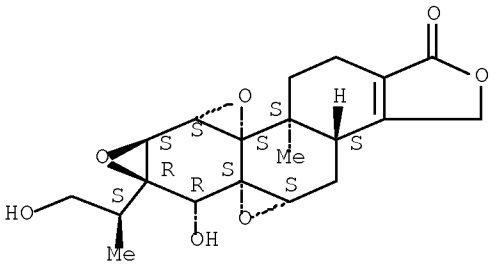


RN 160625-89-8 HCAPLUS
CN Triptolide, 16-hydroxy-, (15S)-, mixt. with [3S-[3R*[E(1S*,3S*,4S*)],4S*,5R*,8S*,9E,12R*,14R*,15S*,16R*,18S*,19S*,26aR*]]-5,6,8,11,12,13,14,15,16,17,18,19,24,25,26,26a-hexadecahydro-5,19-dihydroxy-3-[2-(4-hydroxy-3-methoxycyclohexyl)-1-methylethenyl]-14,16-dimethoxy-4,10,12,18-tetramethyl-8-(2-propenyl)-15,19-epoxy-3H-pyrido[2,1-c][1,4]oxaazacyclotricosine-1,7,20,21(4H,23H)-tetrone (9CI) (CA INDEX NAME)

CM 1

CRN 139713-80-7
CMF C20 H24 O7

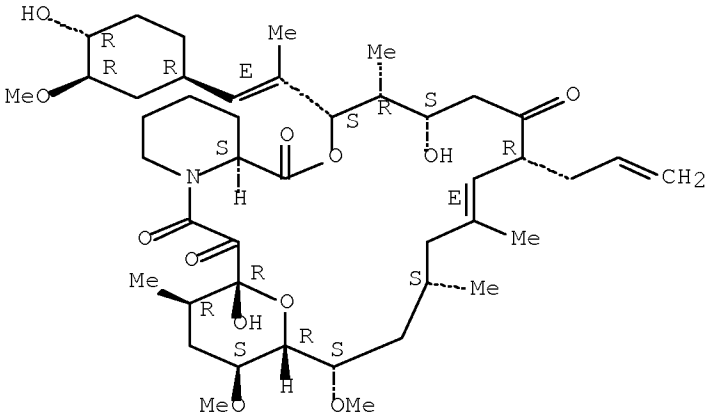
Absolute stereochemistry.



CM 2

CRN 104987-11-3
CMF C44 H69 N O12

Absolute stereochemistry.
Double bond geometry as shown.



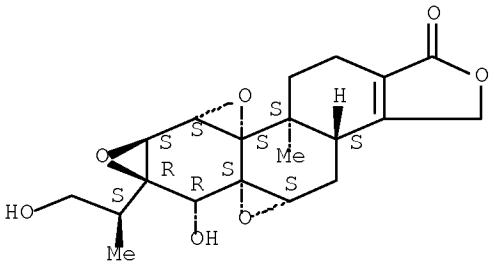
RN 160625-90-1 HCAPLUS

CN Triptolide, 16-hydroxy-, (15S)-, mixt. with 6-[(1-methyl-4-nitro-1H-imidazol-5-yl)thio]-1H-purine (9CI) (CA INDEX NAME)

CM 1

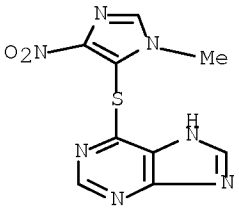
CRN 139713-80-7
CMF C20 H24 O7

Absolute stereochemistry.



CM 2

CRN 446-86-6
CMF C9 H7 N7 O2 S

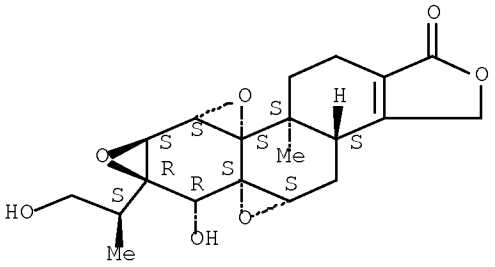


RN 160625-91-2 HCAPLUS
CN L-Glutamic acid, N-[4-[[(2,4-diamino-6-pteridinyl)methyl]methylamino]benzoyl]-, mixt. with (15S)-16-hydroxytriptolide (9CI) (CA INDEX NAME)

CM 1

CRN 139713-80-7
CMF C20 H24 O7

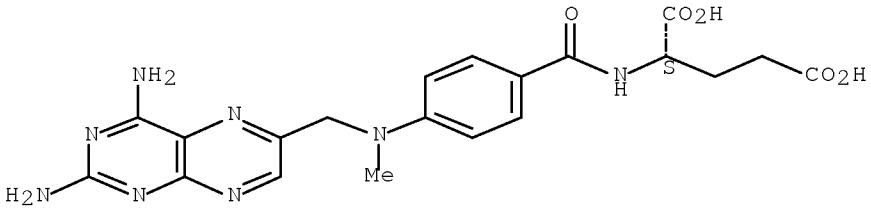
Absolute stereochemistry.



CM 2

CRN 59-05-2
CMF C20 H22 N8 O5

Absolute stereochemistry.

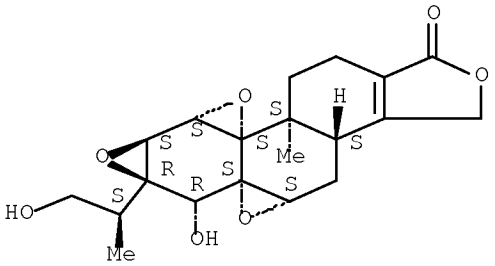


RN 160625-92-3 HCAPLUS
CN Rapamycin, mixt. with (15S)-16-hydroxytriptolide (9CI) (CA INDEX NAME)

CM 1

CRN 139713-80-7
CMF C20 H24 O7

Absolute stereochemistry.

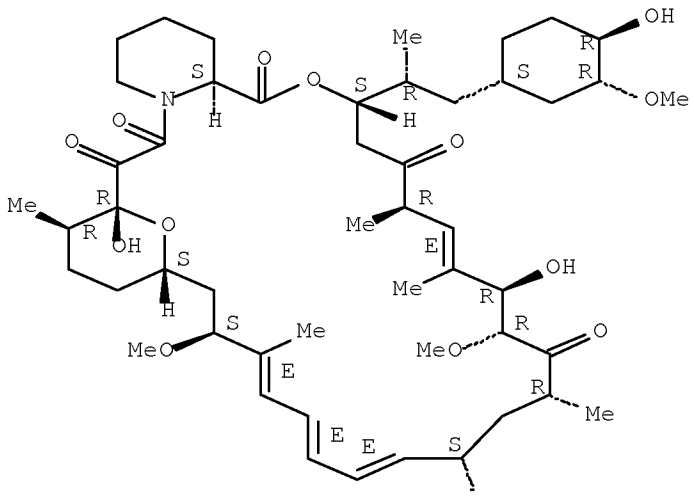


CM 2

CRN 53123-88-9
CMF C51 H79 N O13

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



PAGE 2-A

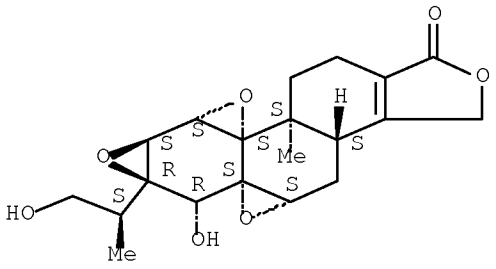
Me

RN 160625-93-4 HCAPLUS
CN Triptolide, 16-hydroxy-, (15S)-, mixt. with (E)-6-(1,3-dihydro-4-hydroxy-6-methoxy-7-methyl-3-oxo-5-isobenzofuranyl)-4-methyl-4-hexenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 139713-80-7
CMF C20 H24 O7

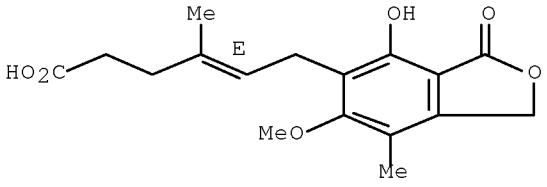
Absolute stereochemistry.



CM 2

CRN 24280-93-1
CMF C17 H20 O6

Double bond geometry as shown.

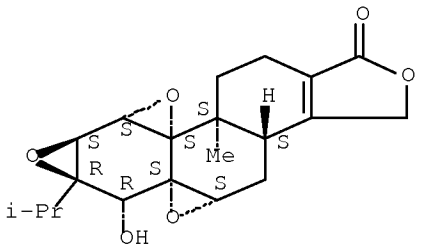


L124 ANSWER 22 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1994:549289 HCAPLUS Full-text
DOCUMENT NUMBER: 121:149289
TITLE: The effect of Tripterygium wilfordii monomers T4, T7, and T15 and Triptolide on rat sperm nuclear protein
AUTHOR(S): Dai, Wenping; Liu, Ping; Han, Yuhua; Chen, Xiaomei; Fei, Renren; Xue, Shepu
CORPORATE SOURCE: Inst. Basic Med. Sci., Chin. Acad. Med. Sci., Beijing, 100005, Peop. Rep. China
SOURCE: Zhongguo Yixue Kexueyuan Xuebao (1994), 16(1), 20-3
CODEN: CIHPDR; ISSN: 1000-503X
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

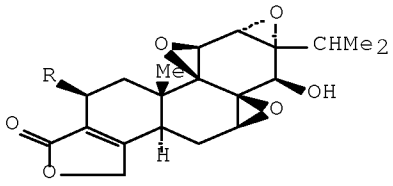
AB Rat epididymal sperms were collected after 7 wk of treatment with Tripterygium wilfordii monomers T4, T7, T15 and triptolide. Total nuclear basic protein (TNBP) were extracted from sperm nuclei isolated by sonication. The relative proportions of histones and protamine were determined by scanning microdensitometry following electrophoresis of TNBP in polyacrylamide gels. It was found that the content of TNBP was reduced while the total histone/protamine ratios were increased following treatment, indicating a marked decrease of protamine levels as compared with the control group. These results suggest that the interruption of nuclear protein transition of spermatids induced by T4, T7, T15 and triptolide might lead to infertility.

IT 38748-32-2, Triptolide
RL: BIOL (Biological study)
(sperm nuclear protein transition interruption by, infertility in relation to)
RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L124 ANSWER 23 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1993:509223 HCAPLUS Full-text
DOCUMENT NUMBER: 119:109223
TITLE: Male antifertility compounds from Tripterygium wilfordii Hook F
AUTHOR(S): Matlin, Stephen A.; Belenguer, Ana; Stacey, Vivien E.; Qian, Shao Zhen; Xu, Ye; Zhang, Jian Wei; Sanders, Jeremy K. M.; Amor, Stuart R.; Pearce, Clive M.
CORPORATE SOURCE: Chem. Dep., City Univ. London, London, EC1V 0HB, UK
SOURCE: Contraception (1993), 47(4), 387-400
CODEN: CCPTAY; ISSN: 0010-7824
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



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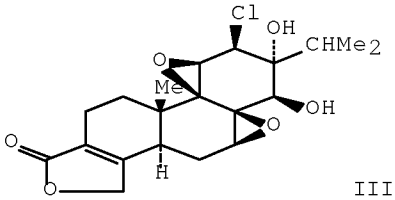
II, R=OH



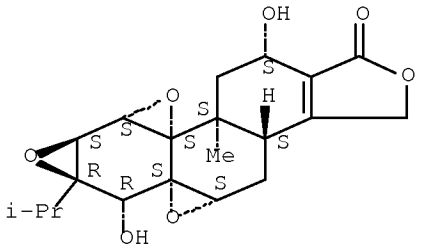
III

AB Exts. of the Chinese medicinal plant, Tripterygium wilfordii, cause reversible infertility in male animals. Sub-fractionation studies have now revealed that the plant exts. contain a number of compds. which are potent antifertility agents in male mammals, including the diterpenes triptolide (I) and tripdiolide (II) and an isomer of the latter. Triptolide 12,13-chlorohydrin (III), which is a transformation product formed reversibly by interaction of triptolide with HCl, was also active.

IT 38647-10-8, Tripdiolide 38748-32-2, Triptolide 99694-86-7, Triptolidenol
RL: PRP (Properties)
(male antifertility effects of)

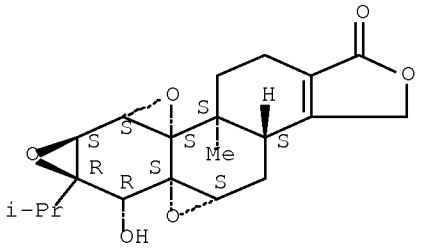
RN 38647-10-8 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6,10-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS,10S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



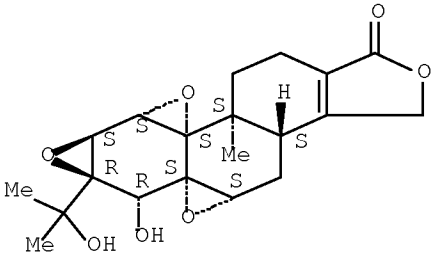
RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



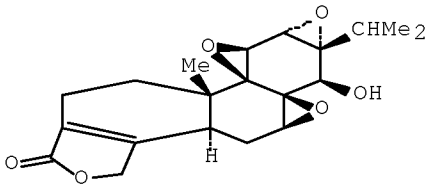
RN 99694-86-7 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-6a-(1-hydroxy-1-methylethyl)-8b-methyl-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



L124 ANSWER 24 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1981:167788 HCAPLUS Full-text
DOCUMENT NUMBER: 94:167788
ORIGINAL REFERENCE NO.: 94:27283a,27286a
TITLE: Some toxicities of triptolide in mice and dogs
AUTHOR(S): Cheng, You-Lan; Ye, Ju-Rong; Lin, Da-Jie; Lin, Lu-Jie; Zhu, Jun-Ning

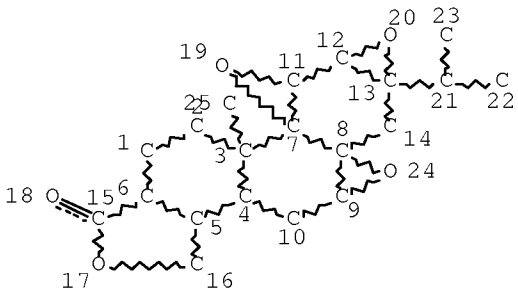
CORPORATE SOURCE: Inst. Med. Pharm. Sci. Fujian, Fuzhou, Peop. Rep. China
SOURCE: Zhongguo Yaoli Xuebao (1981), 2(1), 70-2
CODEN: CYLPDN; ISSN: 0253-9756
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
GI



I

AB The toxicity of triptolide (I) [38748-32-2], an antileukemic agent isolated from Trypterygium wilfordii, was investigated. The LD50 of I for mice was 0.8 mg/kg after i.v. administration and 0.9 mg/kg after i.p. administration. Dogs given I at 20-160 μg/kg/day, i.v., for 7 days showed pathol. or functional changes in the heart, liver, and gastrointestinal tract. A LD (60 μg/kg) depressed the hematopoietic system of bone marrow. The poisoning symptoms were restored after discontinuation of I administration. I at <20 μg/kg/day had no adverse effect.

=> => D STAT QUE L135
L108 STR



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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 25

STEREO ATTRIBUTES: NONE
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L111 551 SEA FILE=HCAPLUS ABB=ON PLU=ON L110

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L135 ANSWER 1 OF 66  HCAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:        2007:808752  HCAPLUS  Full-text
TITLE:                   Microstructural studies of L10-FePt thin films with
                         high coercivity fabricated at low deposition
                         temperatures
AUTHOR(S):               Zhao, Z. L.; Ding, J.; Li, Y.; Chow, G. M.; Chen,
                         J. S.; Wang, J. P.
CORPORATE SOURCE:        Department of Material Sciences & Engineering,
                         National University of Singapore, Singapore, 119260,
                         Singapore
SOURCE:                  Metallurgical and Materials Transactions A: Physical
                         Metallurgy and Materials Science (2007), 38A(4),
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811-814
CODEN: MMTAEB; ISSN: 1073-5623
PUBLISHER: Springer
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The influence of ultrathin nonmagnetic Ag layers on the formation of the ordered fct-L10 PtFe phase and their magnetic properties have been studied, when the thin FePt films were deposited on MgO (100) single-crystal substrates. Epitaxial growth of the FePt (001) films was observed at the deposition temperature of 400 °C. With ultrathin Ag intermediate layers deposited between FePt layers, the surface morphol. changed from the interconnection network to isolated-island character. The perpendicular coercivity of the FePt film dramatically increased from 6.5 to 32.5 kOe. The formation mechanism of the isolated island morphol. of FePt thin films is discussed.
REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 2 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2007:641561 HCAPLUS Full-text
DOCUMENT NUMBER: 147:70908
TITLE: Myeloid suppressor cell-associated immune dysfunction in CSA1M fibrosarcoma tumor-bearing mice
AUTHOR(S): Zhou, Ru; He, Pei-Lan; Ren, Yong-Xin; Wang, Wen-Hai; Zhou, Rong-Yao; Wan, Hua; Ono, Shiro; Fujiwara, Hiromi; Zuo, Jian-Ping
CORPORATE SOURCE: Laboratory of Immunopharmacology, State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Chinese Academy of Sciences, Shanghai, 201203, Peop. Rep. China
SOURCE: Cancer Science (2007), 98(6), 882-889
CODEN: CSACCM; ISSN: 1347-9032
PUBLISHER: Blackwell Publishing Asia Pty Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB CSA1M tumor-bearing mice exhibited a severe immune dysfunction but the underlying mechanism remained unclear. In this study, the authors demonstrated that the myeloid suppressor cell (Mac-1+Gr-1+ cells)-(MSC) related T cell immunosuppression in this tumor-bearing model. In mice at the late stage of CSA1M tumor-bearing (Late TB [8-10 wk after cell inoculation in male BALB/c mice]), the percentages for CD4+ and CD8+ T cells decreased but Mac-1+ cells increased in spleens with severe splenomegaly. There was no deficit for Con A-induced CD4+ and CD8+ T cell proliferation, interferon-γ (IFN-γ) and interleukin (IL)-4 production, but delayed-type hypersensitivity reaction were attenuated. Anal. of cytokine production in unfractionated spleen cells showed a significant reduction of IFN-γ and a marked increase of IL-10 and IL-4. In Late-TB mice, splenic MSC number intensively accumulated; the mRNA expressions of the signal transducer and activator of transcription 1, interferon regulatory factor 1 (IRF-1), and inducible nitric-oxide synthase (iNOS) were enhanced in MSC; the nitric oxide production and arginase enzyme activity increased in MSC as well. Furthermore, the Con A-induced T cell proliferation was inhibited in the presence of lipopolysaccharide- or IFN-γ-activated MSC from Late-TB mice, which could be reversed by the iNOS specific inhibitor L-NMMA. INOS seemed to be required more than arginase for the suppressive activity of MSC. Taken together, the authors' results suggest that the immune dysfunction in tumor-bearing mice might be causally associated with the accumulation of MSC and its tumor-favoring property.

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 3 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2007:524158 HCAPLUS Full-text
DOCUMENT NUMBER: 147:157839
TITLE: Suppressive effect of a novel water-soluble artemisinin derivative SM905 on T cell activation and proliferation in vitro and in vivo
AUTHOR(S): Wang, Jun-Xia; Tang, Wei; Yang, Zhong-Shun; Wan, Jin; Shi, Li-Ping; Zhang, Yu; Zhou, Ru; Ni, Jia; Hou, Li-Fei; Zhou, Yu; He, Pei-Lan; Yang, Yi-Fu; Li, Ying; Zuo, Jian-Ping
CORPORATE SOURCE: First Department of Pharmacology, State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, Peop. Rep. China
SOURCE: European Journal of Pharmacology (2007), 564(1-3), 211-218
CODEN: EJPHAZ; ISSN: 0014-2999
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Artemisinin and its derivs. exhibit potent immunosuppressive activity. The aim of this study was to investigate the suppressive effects of SM905, a new water-soluble artemisinin derivative, on T lymphocytes both in vitro and in vivo, and explore its potential mode of action. The results showed that SM905 had a high inhibitory activity in Con A (ConA)-induced splenocyte proliferation and mixed lymphocyte reaction, and a relatively low cytotoxicity in vitro. In ovalbumin-immunized mice, oral administration of SM905 dose-dependently suppressed T cell proliferative response to ovalbumin, and inhibited anti-ovalbumin interleukin-2 (IL-2) and interferon-γ (IFN-γ) production by T cells. Further studies showed that SM905 inhibited TCR (T cell receptor)/CD3 plus CD28-mediated primary T cell proliferation and cytokine production (IL-2 and IFN-γ), and exerted an inhibitory action on the phosphorylation of mitogen-activated protein (MAP) kinases including extracellular signal-regulated kinase (ERK), p38 and Jun N-terminal kinase (JNK), and the activation of Ras. The results of this study provided exptl. evidence that the new artemisinin derivative SM905 had immunosuppressive effects both in vitro and in vivo. SM905 suppressed T cell activation, which was associated with the inhibition of MAP kinases and Ras activation. Our results suggested a potential of SM905 to be developed as a new type agent for treating T cell-mediated immune disorder.
REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 4 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2007:459438 HCAPLUS Full-text
DOCUMENT NUMBER: 146:475120
TITLE: (5R)-5-hydroxytriptolide (LLDT-8) protects against bleomycin-induced lung fibrosis in mice
AUTHOR(S): Ren, Yong-xin; Zhou, Ru; Tang, Wei; Wang, Wen-hai; Li, Yuan-chao; Yang, Yi-fu; Zuo, Jian-ping
CORPORATE SOURCE: Laboratory of Immunopharmacology, State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, 201203, Peop.

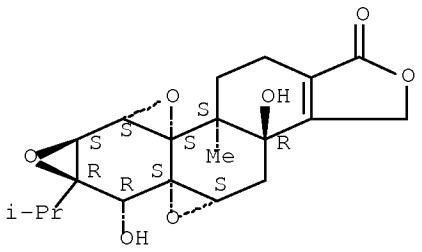
Rep. China
SOURCE: Acta Pharmacologica Sinica (2007), 28(4), 518-525
CODEN: APSCG5; ISSN: 1671-4083
PUBLISHER: Blackwell Publishing Asia Pty Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Aim: To study the protective effects of a triptolide-derived, novel compound, (5R)-5-hydroxytriptolide (LLDT-8), on bleomycin-induced lung fibrosis. Methods: C57BL/6 mice received an intratracheal injection of bleomycin and were then treated with LLDT-8 (0.5, 1, 2 mg/kg, i.p.) once daily for 7 or 14 consecutive days. The body weight loss and lung index augmentation was observed; the inflammatory response including differential cells counts of neutrophils, macrophages, and lymphocytes in the bronchoalveolar lavage fluid (BALF), superoxide dismutase (SOD), and malondialdehyde (MDA) level in the lung homogenates was detected, and the fibrosis extent was evaluated by hydroxyproline content and histopathol. changes in the lungs. In addition, the pro-inflammatory and pro-fibrotic cytokines, tumor necrosis factor-α (TNF-α), interleukin-4 (IL-4), and transforming growth factor-α (TGF-α) production in the lungs were measured. Results: LLDT-8 alleviated the body weight loss and lung index increase caused by bleomycin, reduced neutrophils and lymphocytes in the BALF, promoted SOD activity, decreased MDA production, and inhibited the hydroxyproline level and the amelioration of lung tissue histol. damage. Moreover, LLDT-8 suppressed TNF-α, IL-4, and TGF-β production in the lung homogenates. Conclusion: LLDT-8 showed protective effects against bleomycin-induced lung fibrosis, and the results suggested the potential role of LLDT-8 in the treatment of this disease.

IT 583028-68-6, (5R)-5-Hydroxytriptolide
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
((5R)-5-hydroxytriptolide (LLDT-8) protects against bleomycin-induced lung fibrosis in mice)

RN 583028-68-6 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b,6-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 5 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2007:426132 HCAPLUS Full-text
DOCUMENT NUMBER: 146:423967
TITLE: Microfluidic T-form mixer utilizing pressure disturbances

AUTHOR(S): Ma, Y. B.; Fields, M.; Sun, C. P.; Zhang, F. Y.; Liao, J. C.; Li, Y.; Churchill, B. M.; Ho, C. M.
CORPORATE SOURCE: Department of Mechanical and Aerospace Engineering, UCLA, Los Angeles, CA, 90095, USA
SOURCE: NSTI Nanotech 2006, NSTI Nanotechnology Conference and Trade Show, Boston, MA, United States, May 7-11, 2006 (2006), Volume 2, 651-654. Editor(s): Laudon, Matthew; Romanowicz, Bart. Nano Science and Technology Institute: Cambridge, Mass. CODEN: 69JBY7; ISBN: 0-9767985-9-X
DOCUMENT TYPE: Conference; (computer optical disk)
LANGUAGE: English
AB A simple solution to mixing problems in micro fluidic systems was presented in this paper. A T-form microfluidic mixer was designed and tested utilizing pressure disturbances. The performance of the mixer was studied through both numerical simulation and experimentation. Based on results of numerical simulation, > 75% mixing can be finished within a mixing distance of < 1.5 mm from the T-junction for flow with Reynolds number < 0.24. For Reynolds number > 0.24, .apprx. 90% mixing can be finished in < 1.5 mm. The numerical results were validated by mixing two aqueous solns. under the microscope and the flow field was visualized using two different dyes. There was very good agreement between the numerical simulation results and exptl. results in flow patterns.
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 6 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2007:243125 HCAPLUS Full-text
DOCUMENT NUMBER: 146:372238
TITLE: Investigation of the immunosuppressive activity of artemether on T-cell activation and proliferation
AUTHOR(S): Wang, J.-X.; Tang, W.; Shi, L.-P.; Wan, J.; Zhou, R.; Ni, J.; Fu, Y.-F.; Yang, Y.-F.; Li, Y.; Zuo, J.-P.
CORPORATE SOURCE: First Department of Pharmacology, State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, Peop. Rep. China
SOURCE: British Journal of Pharmacology (2007), 150(5), 652-661 CODEN: BJPCBM; ISSN: 0007-1188
PUBLISHER: Nature Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Artemisinin and its derivs. exhibit potent immunosuppressive activity. The purpose of the current study was to examine the immunosuppressive activity of artemether directly on T lymphocytes and to explore its potential mode of action. In vitro, T-cell proliferation was measured using [3H]-thymidine incorporation assay in cells stimulated with ConA, alloantigen and anti-CD3 antibody. CFSE-labeled cell division and cell cycle distribution were monitored by flow cytometry. In vivo, the effects of artemether were evaluated in delayed-type hypersensitivity (DTH) and purified T-cell responses to ovalbumin in ovalbumin-immunized mice. The activation of extracellular signal-regulated kinase1/2 (ERK1/2) and Raf1 were assessed by Western blot anal. and the activation of Ras was tested in pull-down assays. We show that, in vitro, artemether suppressed ConA- or alloantigen-induced splenocyte proliferation, influenced production of the cytokines IL-2 and IFN-γ and inhibited cell cycle progression through the G0/G1 transition. In vivo, administration of artemether attenuated CD4 T-cell-mediated DTH reaction, and

suppressed antigen-specific T-cell response in immunized mice. Further expts. showed that, treatment with artemether impaired both antigen- and anti-CD3-induced phosphorylation of ERK. In primary T cells, artemether profoundly inhibited anti-CD3-induced phosphorylation of Raf1 and activation of Ras. This study provided exptl. evidence of the immunosuppressive effects of artemether directly on T cells both in vitro and in vivo. Its immunosuppressive mechanism involved inhibition of the activation of the Ras-Raf1-ERK1/2 protein kinase cascade in T cells.

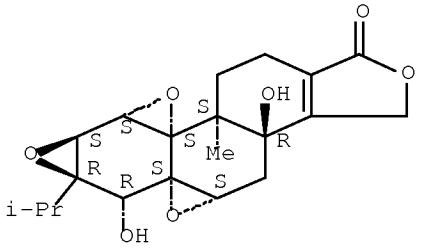
REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 7 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:1335374 HCAPLUS Full-text
DOCUMENT NUMBER: 146:134993
TITLE: (5R)-5-hydroxytriptolide inhibits IFN-γ-related signaling
AUTHOR(S): Zhou, Ru; Wang, Jun-xia; Tang, Wei; He, Pei-lan; Yang, Yi-fu; Li, Yuan-chao; Li, Xiao-yu; Zuo, Jian-ping
CORPORATE SOURCE: Laboratory of Immunopharmacology, State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, 201203, Peop. Rep. China
SOURCE: Acta Pharmacologica Sinica (2006), 27(12), 1616-1621
CODEN: APSCG5; ISSN: 1671-4083
PUBLISHER: Blackwell Publishing Asia Pty Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Aim: (5R)-5-hydroxytriptolide (LLDT-8) displayed anti-arthritis and anti-allogenic transplantation rejection activities in our previous studies. Here, we aim to further clarify the effect of LLDT-8 on the pro-inflammatory cytokine IFN-γ. Methods: T cells were activated with anti-CD3 antibody or Con A (ConA). The expression of cell surface mols. was detected with flow cytometry. Cells were labeled with carboxyfluorescein diacetate succinimidyl ester (CFSE) to test cell division. IFN-γ production was determined by ELISA. Cell proliferation was evaluated by [3H]-thymidine uptake. Mice were immunized with ovalbumin to assess the in vivo immune response. RT-PCR and Real-time PCR were applied to determine the mRNA expression. The protein phosphorylation levels were detected by Western immunoblot assay. Results: LLDT-8 at 100 nmol/L did not change the CD25, CD69, and CD154 expressions in anti-CD3-stimulated T cells. LLDT-8 markedly blocked the cell division of CD4 and CD8 T cells after ConA stimulation. LLDT-8 inhibited T cell-derived IFN-γ production Moreover, LLDT-8 suppressed the ovalbumin-specific T cell proliferation and IFN-γ generation. In anti-CD3-activated T cells, LLDT-8 abrogated the mRNA expression of signal transducer and activator of transcription1 (STAT1), T-box transcription factor, IL-12 receptor β2, STAT4, and interferon regulatory factor 1 in the IFN-γ expression pathway. Western blot anal. showed that LLDT-8 blocked the phosphorylation levels of extracellular signal-regulated kinase, stress-activated protein kinase (SAPK)/c-Jun N-terminal kinase, and p38 mitogen-activated protein kinase in anti-CD3 plus anti-CD28-activated T cells. In addition, LLDT-8 reduced the transcripts of macrophage inflammatory protein (Mip)-1α, Mip-1β, regulated upon activation normally T-cell expressed and secreted, inducible protein-10, IFN-inducible T cell a chemoattractant, and monokine induced by IFN-γ in IFN-γ-stimulated murine macrophage cell line Raw 264.7 cells. Conclusion: LLDT-8 was a potential inhibitor for IFN-γ-associated signaling.

IT 583028-68-6, (5R)-5-Hydroxytriptolide
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
((5R)-5-hydroxytriptolide inhibits IFN-γ-related signaling in relation to immunosuppressant activity)
RN 583028-68-6 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b,6-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

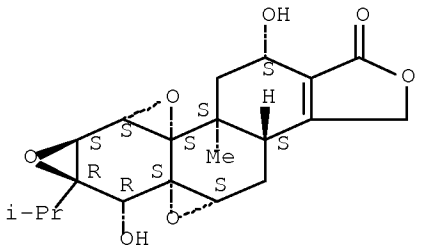
Absolute stereochemistry.



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

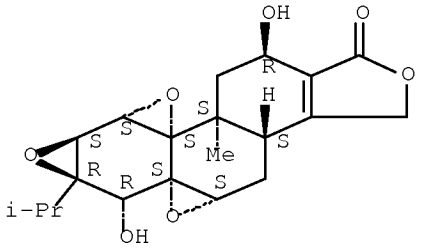
L135 ANSWER 8 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:998234 HCAPLUS Full-text
DOCUMENT NUMBER: 147:138321
TITLE: Diterpene constituents of Tripterygium wilfordii
AUTHOR(S): Lin, Sui; Yu, Xianyong; Que, Huiqing; Chen, Zhong; Xie, Dilin; Li, Yuanchao
CORPORATE SOURCE: Fujian Institute of Medical Sciences, Fuzhou, 350001, Peop. Rep. China
SOURCE: Yaoxue Xuebao (2005), 40(7), 632-635
CODEN: YHHPAL; ISSN: 0513-4870
PUBLISHER: Yaoxue Xuebao Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB The chemical constituents of Tripterygium wilfordii were studied. Various column chromatogs. with silica gel were used for the isolation and purification The structures of compds. were established on the basis of IR, MS, UV, 1H NMR, 13C NMR, and HRMS, 1H-1H COSY, 1H-13C COSY, and NOESY. Four diterpenoids were isolated: 16-hydroxytriptolide (I), triptolidenol (II), tripdiolide (III), 2-epitripdiolide (IV). Compound IV is a new diterpenoid.
IT 38647-10-8P, Tripdiolide 74409-90-8P 99694-86-7P, Triptolidenol 139713-80-7P, 16-Hydroxytriptolide
RL: BSU (Biological study, unclassified); NPO (Natural product occurrence); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(isolation and characterization of diterpene constituents of Tripterygium wilfordii)
RN 38647-10-8 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6,10-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS,10S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



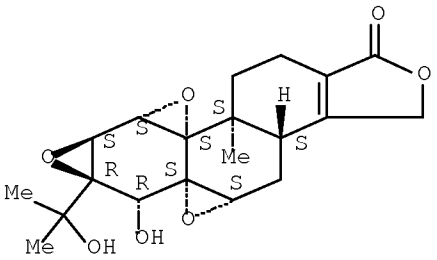
RN 74409-90-8 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6,10-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS,10R)- (CA INDEX NAME)

Absolute stereochemistry.



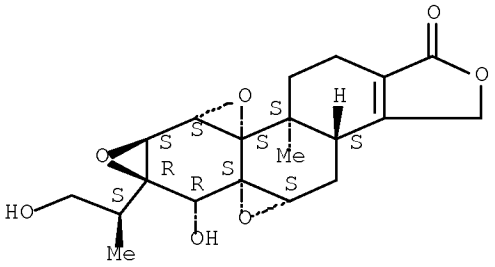
RN 99694-86-7 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-6a-(1-hydroxy-1-methylethyl)-8b-methyl-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



RN 139713-80-7 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-6a-[(1S)-2-hydroxy-1-methylethyl]-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



L135 ANSWER 9 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:658523 HCAPLUS Full-text
DOCUMENT NUMBER: 145:137474
TITLE: (5R)-5-hydroxytriptolide attenuated collagen-induced arthritis in DBA/1 mice via suppressing interferon-β production and its related signaling
AUTHOR(S): Zhou, Ru; Tang, Wei; Ren, Yong-Xin; He, Pei-Lan; Zhang, Fan; Shi, Li-Ping; Fu, Yun-Feng; Li, Yuan-Chao; Ono, Shiro; Fujiwara, Hiromi; Yang, Yi-Fu; Zuo, Jian-Ping
CORPORATE SOURCE: Laboratory of Immunopharmacology, State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, Peop. Rep. China
SOURCE: Journal of Pharmacology and Experimental Therapeutics (2006), 318(1), 35-44
CODEN: JPETAB; ISSN: 0022-3565
PUBLISHER: American Society for Pharmacology and Experimental Therapeutics
DOCUMENT TYPE: Journal
LANGUAGE: English

AB (5R)-5-Hydroxytriptolide (LLDT-8) displays strong immunosuppressive activities both in vitro and in vivo in our previous studies. This study aims to investigate whether LLDT-8 has antiarthritic potential in a murine model of type II bovine collagen (CII)-induced arthritis (CIA) and to show the mechanism(s) of LLDT-8 action. DBA/1 mice were immunized with CII to induce arthritis and administered with LLDT-8. The severity of arthritis was evaluated according to the clin. score and joint damage. The effects of LLDT-8 on immune responses were determined by measurement of serum antibody levels, lymphocyte proliferation assay, cytokine assay, nitric oxide (NO) production, arginase activity assays, fluorescence-activated cell sorting anal. of splenic Mac-1+ cells, as well as polymerase chain reaction anal. for interferon-γ (IFN-γ)-related gene expression. We showed that LLDT-8 treatment significantly reduced the incidence and severity of CIA. The preventive and therapeutic effects of LLDT-8 are associated with (1) reduction of serum anti-CII IgG, IgG2a, and IgG1 levels; (2) inhibition of CII-specific lymphocyte proliferation, IFN-γ and interleukin-2 production; (3) blockade of gene expressions in IFN-γ signaling, including IFN-γ production pathways [signal transducer and activator of transcription (STAT) 1, T-box transcription factor, interleukin 12Rβ2, and STAT4] and IFN-γ-induced chemokine transcription [macrophage inflammatory protein (Mip)-1α, Mip-1β, regulated on activation normally T cell expressed and secreted, and inducible protein 10];

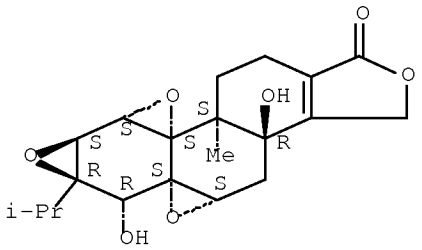
and (4) retardation of the abnormal increase of NO via IFN-γ/STAT1/interferon regulatory factor 1/inducible nitric-oxide synthase pathway and arginase activity. Moreover, the mRNA transcription of chemokine receptors was also suppressed [including C-C chemokine receptor (CCR) 1, CCR5, and C-X-C chemokine receptor 3]. In conclusion, our data suggest that the antiarthritic effect of LLDT-8 is closely related to the blockade of IFN-γ signaling. LLDT-8 may have a therapeutic value in the treatment of rheumatoid arthritis.

IT 583028-68-6, LLDT 8
RL: DMA (Drug mechanism of action); NPO (Natural product occurrence); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(hydroxytriptolide attenuated collagen-induced arthritis via suppressing interferon-β signaling)

RN 583028-68-6 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b,6-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 10 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:487563 HCAPLUS Full-text

DOCUMENT NUMBER: 145:202303

TITLE: (5R)-5-Hydroxytriptolide (LLDT-8), a novel triptolide derivative, prevents experimental autoimmune encephalomyelitis via inhibiting T cell activation

AUTHOR(S): Fu, Yun-Feng; Zhu, Yi-Na; Ni, Jia; Zhong, Xiang-Gen; Tang, Wei; Zhou, Ru; Zhou, Yu; Dong, Jia-Rong; He, Pei-Lan; Wan, Hua; Li, Yuan-Chao; Yang, Yi-Fu; Zuo, Jian-Ping

CORPORATE SOURCE: Laboratories of Immunopharmacology and Medicinal Chemistry, State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, Peop. Rep. China

SOURCE: Journal of Neuroimmunology (2006), 175(1-2), 142-151
CODEN: JNRIDW; ISSN: 0165-5728

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A novel triptolide derivative (5R)-5-hydroxytriptolide (LLDT-8) was shown to have potent immunosuppressive activities. Here LLDT-8 was evaluated in exptl. autoimmune encephalomyelitis (EAE), the model of multiple sclerosis (MS).

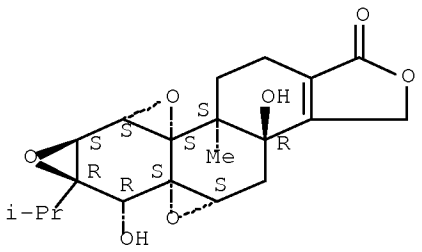
LLDT-8 reduced the incidence and severity of EAE, which was associated with the inhibition of the MOG 35-55 lymphocyte recall response, anti-MOG 35-55 T cell responses, interleukin (IL)-2 and interferon (IFN)-γ production In vitro, LLDT-8 inhibited primary T cells proliferation, division, IL-2 and IFN-γ production stimulated with anti-CD3/28. These findings highlight the fact that LLDT-8 prevents EAE by suppressing T cell proliferation and activation, with a potential for treatment of MS.

IT 583028-68-6, (5R)-5-Hydroxytriptolide
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(a novel triptolide derivative, prevents exptl. autoimmune encephalomyelitis via inhibiting T cell activation)

RN 583028-68-6 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b,6-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 11 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:403349 HCAPLUS Full-text
DOCUMENT NUMBER: 144:445319
TITLE: Preventive effects of (5R)-5-hydroxytriptolide on concanavalin A-induced hepatitis
AUTHOR(S): Zhou, Ru; Tang, Wei; Ren, Yong-Xin; He, Pei-Lan; Yang, Yi-Fu; Li, Yuan-Chao; Zuo, Jian-Ping
CORPORATE SOURCE: Laboratory of Immunopharmacology, State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, 201203, Peop. Rep. China
SOURCE: European Journal of Pharmacology (2006), 537(1-3), 181-189
CODEN: EJPHAZ; ISSN: 0014-2999
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB (5R)-5-hydroxytriptolide (LLDT-8) exhibits strong immunosuppressive activities in vitro and in vivo. Here, we investigated the effects of LLDT-8 on Con A-induced hepatitis. Liver damage was evaluated by serum alanine transaminase (ALT) level and liver histol. The effects of LLDT-8 were determined by measurement of serum cytokines, lymphocyte proliferation assay, flow cytometry anal. of splenic T cell percentage and apoptosis, reverse-transcription

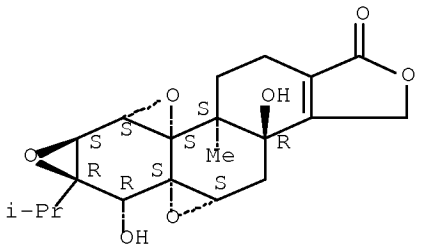
polymerase chain reaction (RT-PCR) anal. for gene transcriptions. In LLDT-8-treated mice, serum ALT level and histol. damage were markedly attenuated. The beneficial effect of LLDT-8 was closely associated with (i) reduction of serum tumor necrosis factor-α, interferon-γ (IFN-γ), interleukin-2, interleukin-12, and interleukin-6 levels; (ii) elimination of activated T cells by increasing proapoptotic genes signal transducer and activator of transcription 1 (STAT1) and interferon regulatory factor-1 (IRF-1) expression in spleens; (iii) blockade of mRNA expressions for chemokines (monokine induced by IFN-γ, Mig; IFN-γ-inducible protein-10, IP-10; IFN-inducible T cell-α chemoattractant, I-TAC), vascular adhesion mol.-1 (VCAM-1), and chemokine receptors (C-C chemokine receptor 1, CCR1; C-C chemokine receptor 5, CCR5; C-X-C chemokine receptor 3, CXCR3) in livers. These results suggested the therapeutic potential of LLDT-8 in IFN-γ/STAT1/IRF-1 signaling- and inflammatory cytokines-mediated immune disorders.

IT 583028-68-6, (5R)-5-Hydroxytriptolide
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preventive effects of (5R)-5-hydroxytriptolide on Con A-induced hepatitis)

RN 583028-68-6 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b,6-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 12 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:290233 HCAPLUS Full-text

DOCUMENT NUMBER: 145:284460

TITLE: Suppression of (5R)-5-hydroxytriptolide (LLDT-8) on Allograft Rejection in Full MHC-Mismatched Mouse Cardiac Transplantation

AUTHOR(S): Tang, Wei; Zhou, Ru; Yang, Yang; Li, Yuan-chao; Yang, Yi-fu; Zuo, Jian-ping

CORPORATE SOURCE: Laboratory of Immunopharmacology, Graduate School of the Chinese Academy of Sciences, Shanghai, Peop. Rep. China

SOURCE: Transplantation (2006), 81(6), 927-933
CODEN: TRPLAU; ISSN: 0041-1337

PUBLISHER: Lippincott Williams & Wilkins

DOCUMENT TYPE: Journal

LANGUAGE: English

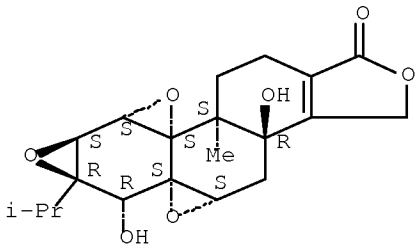
AB Background: (5R)-5-hydroxytriptolide (LLDT-8) is a new compound derived from triptolide, which is the major immunosuppressive fraction of Tripterygium wilfordii Hook. F (TWHF). Studies in vitro and in vivo have demonstrated that LLDT-8 had potent immunosuppressive activities. Here we tested LLDT-8 in major histocompatibility complex (MHC)-mismatched cardiac transplantation and investigated the mechanisms underlying the prevention of transplant rejection. Methods: LLDT-8 was administered orally to recipients in Balb/c to C57BL/6 murine cardiac transplantation model. Allograft survival after transplantation was recorded in recipients. The T cell immunity and cytokine production were observed Histol. anal. was performed. The chemokine and its receptor were analyzed by reverse transcriptase-polymerase chain reaction on cardiac graft RNA. Results: LLDT-8 administered orally significantly induced the survival prolongation of allogeneic cardiac graft. Histol. results showed that LLDT-8 well preserved myocardium and significantly reduced infiltration of the graft with inflammatory cells. LLDT-8 decreased IL-2 production in recipient splenocytes stimulated by Con A (ConA) ex vivo. LLDT-8 significantly inhibited the immunoreactivity of recipient to specific donor alloantigens, but preserved immunity to third-party alloantigens and mitogen. However, the flow cytometry anal. of the proportion of CD4, CD8 T cell subgroup in recipient spleens showed LLDT-8 had a normalizing effect on the splenic lymphocytes population. LLDT-8 decreased CC chemokine receptor 5 (CCR5) and their ligands macrophage inflammatory protein 1 alpha (MIP-1α) and beta (MIP-1β) mRNA expressions in allografts. Conclusion: The results outline the great potential of LLDT-8 as a therapeutic tool in transplant rejection.

IT 583028-68-6, 5-α-Hydroxytriptolide
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
((5R)-5-hydroxytriptolide LLDT-8 treatment prolonged allograft survival and reduced chemokine and its receptor in full MHC-mismatched mouse cardiac transplantation model)

RN 583028-68-6 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b,6-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 13 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:264141 HCAPLUS Full-text
DOCUMENT NUMBER: 146:118120
TITLE: Ultrastructural changes of nucleoli in common wheat induced by actinomycin DPeople's Republic of China
AUTHOR(S): Dai, J.; Han, Y.; Xu, B.; Li, Y.; Liu, J.; Zhao, Y.;

Zhang, F.
CORPORATE SOURCE: College of Life Science, Capital Normal University, Beijing, 100037, Peop. Rep. China
SOURCE: Biotechnic & Histochemistry (2005), 80(5-6), 223-225
CODEN: BIHIEU; ISSN: 1052-0295
PUBLISHER: Taylor & Francis Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Common wheat root tip meristematic cells were treated with low concns. of actinomycin D (ActD), then stained whole by silver nitrate. We showed by transmission electron microscopy that the typical nucleolar structure did not form, but a granular and fibrillar network was exhibited in the nucleolar region. Our results support a correlation between nucleolar organization/assembly and the activation of RNA Polymerase I transcription. Furthermore, we speculate that the fibrillar network present in the nucleolar region of ActD treated cells may represent the basic skeletal structure required to support the nucleolus.
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 14 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:220317 HCAPLUS Full-text
DOCUMENT NUMBER: 144:304791
TITLE: S-adenosyl-L-homocysteine hydrolase inactivation curtails ovalbumin-induced immune responses
AUTHOR(S): Fu, Yun-Feng; Wang, Jun-Xia; Zhao, Yang; Yang, Yang; Tang, Wei; Ni, Jia; Zhu, Yi-Na; Zhou, Ru; He, Pei-Lan; Li, Chuan; Li, Xiao-Yu; Yang, Yi-Fu; Lawson, Brian R.; Zuo, Jian-Ping
CORPORATE SOURCE: Laboratory of Immunopharmacology and State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Graduate School of the Chinese Academy of Sciences, Shanghai, Peop. Rep. China
SOURCE: Journal of Pharmacology and Experimental Therapeutics (2006), 316(3), 1229-1237
CODEN: JPETAB; ISSN: 0022-3565
PUBLISHER: American Society for Pharmacology and Experimental Therapeutics
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The reversible S-adenosyl-L-homocysteine (AdoHcy) hydrolase inhibitor Me 4-(adenin-9-yl)-2-hydroxybutanoate (DZ2002) suppresses macrophage activation and function. The effects of DZ2002 on T cell function, however, are still unclear. Here, we examined whether DZ2002 alters type 1 helper T cell (Th1) and/or type 2 helper T cell (Th2) immune responses, and whether these effects are associated with both the inhibition of AdoHcy hydrolase and intracellular elevation of endogenous AdoHcy. Male C57BL/6 mice immunized with ovalbumin (OVA) were treated with DZ2002 (1, 5, and 25 mg/kg/day) after which lymphocyte proliferation, cytokine production, and IgG responses to OVA were monitored. Administration of DZ2002 dose dependently suppressed OVA-specific lymphocyte proliferation and anti-OVA IgG production compared with controls. Interleukin (IL)-2 and interferon (IFN)-γ as well as anti-OVA IgG2a and IgG3, indicators of Th1 immune responses, were markedly decreased in mice treated with DZ2002, whereas IL-4 and anti-OVA IgG1, indicators of Th2 immune responses, were only mildly suppressed. AdoHcy hydrolase activity in spleens of DZ2002-treated mice was substantially blocked, and not surprisingly, AdoHcy levels were significantly elevated compared with controls. Finally, similar

immunosuppressive effects were also observed in mice treated with AdoHcy. These data strongly indicate that DZ2002 suppresses antigen-induced specific immune responses, particularly Th1 responses, through inhibition of AdoHcy hydrolase and elevation of endogenous AdoHcy.

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 15 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:131935 HCAPLUS Full-text

DOCUMENT NUMBER: 144:184304

TITLE: Periplocoside E, and effective compound from Periploca sepium Bge, inhibited T cell activation in vitro and in vivo

AUTHOR(S): Zhu, Yi-Na; Zhao, Wei-Min; Yang, Yi-Fu; Liu, Qun-Fang; Zhou, Yu; Tian, Jia; Ni, Jia; Fu, Yun-Feng; Zhong, Xiang-Gen; Tang, Wei; Zhou, Pu; He, Pei-Lan; Li, Xiao-Yu; Zuo, Jian-Ping

CORPORATE SOURCE: Laboratories of Immunopharmacology, Graduate School of the Chinese Academy of Sciences, State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, Peop. Rep. China

SOURCE: Journal of Pharmacology and Experimental Therapeutics (2006), 316(2), 662-669
CODEN: JPETAB; ISSN: 0022-3565

PUBLISHER: American Society for Pharmacology and Experimental Therapeutics

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Periploca sepium Bge, a traditional Chinese herb medicine, is used for treating rheumatoid arthritis in China. Followed the bioactivity-guided isolation, the most potent immunosuppressive compound, periplocoside E (PSE), a pregnane glycoside, had been identified from P. sepium Bge. We investigated the immunosuppressive effects of PSE in vitro and in vivo. The results showed that PSE in a dose-dependent manner significantly inhibited the proliferation of splenocytes induced by Con A and mixed lymphocyte culture reaction at no cytotoxic concns. (<5 μM). Administration of PSE suppressed a delayed-type hypersensitivity reaction, and ovalbumin (OVA) induced antigen-specific immune responses in mice. In vivo treatment with PSE dose dependently suppressed OVA-induced proliferation and cytokine [interleukin (IL)-2 and interferon (IFN)-γ] production from splenocytes in vitro. Purified T cells from OVA-immunized mice with PSE treatment showed its low ability for activation by OVA plus normal antigen presenting cell stimulation again in vitro. Further studies showed PSE dose dependently inhibited anti-CD3-induced primary T cell proliferation, activation for IL-2Rα (CD25) expression, and cytokine (IFN-γ and IL-2) production also at the transcriptional level. PSE was highly specific and significantly inhibited the activation of extracellular signal-regulated kinase and Jun N-terminal kinase, whereas activation of p38 was not affected in T cells stimulated with anti-CD3. These results demonstrated that PSE is an immunosuppressive compound in P. sepium Bge, which directly inhibits T cell activation in vitro and in vivo. This study provided evidence to understand the therapeutic effects of P. sepium Bge and indicated that this herb is appropriate for treatment of T cell-mediated disorders, such as autoimmune diseases.

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

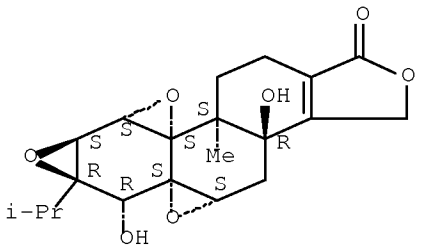
L135 ANSWER 16 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:17384 HCAPLUS Full-text
DOCUMENT NUMBER: 144:80860
TITLE: Inhibition of inducible nitric-oxide synthase expression by (5R)-5-hydroxytriptolide in interferon-γ- and bacterial lipopolysaccharide-stimulated macrophages
AUTHOR(S): Zhou, Ru; Zheng, Shen-Xi; Tang, Wei; He, Pei-Lan; Li, Xiao-Yu; Yang, Yi-Fu; Li, Yuan-Chao; Geng, Jian-Guo; Zuo, Jian-Ping
CORPORATE SOURCE: Laboratories of Immunopharmacology and Chemistry, State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Graduate School of the Chinese Academy of Sciences, Shanghai, Peop. Rep. China
SOURCE: Journal of Pharmacology and Experimental Therapeutics (2006), 316(1), 121-128
CODEN: JPETAB; ISSN: 0022-3565
PUBLISHER: American Society for Pharmacology and Experimental Therapeutics
DOCUMENT TYPE: Journal
LANGUAGE: English

AB (5R)-5-Hydroxytriptolide (LLDT-8) is a novel analog of triptolide that has antiarthritic, hepatoprotective, and antiallogenic transplantation- rejective effects. In the present study, we report that LLDT-8 inhibited nitric oxide (NO) production and inducible nitric-oxide synthase (iNOS) expression in macrophages. LLDT-8 significantly attenuated NO production, in a dose-dependent manner, in primary peritoneal macrophages and a macrophage cell line of Raw 264.7 cells following stimulation with interferon (IFN)-γ, lipopolysaccharide (LPS), and IFN-γ plus LPS. It also reduced the production of tumor necrosis factor-α from LPS-stimulated Raw 264.7 cells. To further elucidate the mechanism responsible for the inhibition of NO, we examined the effect of LLDT-8 on IFN-γ and LPS-induced iNOS expression. Indeed, LLDT-8 prevented NO generation by inhibiting iNOS expression at mRNA level and protein level, rather than by interfering its enzymic activity. In IFN-γ-stimulated Raw 264.7 cells, LLDT-8 suppressed the gene transcription of signal transducer and activator of transcription 1α and interferon regulatory factor (IRF)-1, but it displayed no apparent effect on IFN-γ receptor level on cell surface. After LPS challenge, LLDT-8 further abrogated the expression of LPS receptor complex, including CD14, Toll-like receptor 4, and myeloid differentiation protein-2; decreased the LPS-induced phosphorylation of stress-activated protein kinase/c-Jun NH2-terminal kinase, extracellular signal-regulated kinase 1/2, and p38 mitogen-activated protein kinase (MAPK); retarded the degradation of IκBα; and ameliorated the DNA binding activity of nuclear factor-κB (NF-κB) to nuclear proteins that accounts for transcriptional regulation of iNOS. Taken together, these results suggest that LLDT-8 reduces NO production and iNOS expression by inhibiting IFN-γ-triggered IRF-1 expression and LPS-triggered MAPK phosphorylation and NF-κB activation.

IT 583028-68-6
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(inhibition of inducible nitric-oxide synthase expression by (5R)-5-hydroxytriptolide in interferon-γ- and bacterial lipopolysaccharide-stimulated macrophages)
RN 583028-68-6 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b,6-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

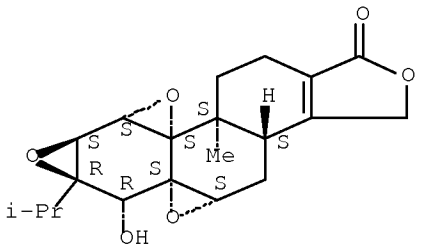
Absolute stereochemistry.



REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 17 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:1343331 HCAPLUS Full-text
DOCUMENT NUMBER: 146:100878
TITLE: Progress in structure modification of Triptolide
AUTHOR(S): Zhang, Fan; Li, Yuanchao
CORPORATE SOURCE: Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, 201203, Peop. Rep. China
SOURCE: Yaoxue Xuebao (2004), 39(10), 857-864
CODEN: YHHPAL; ISSN: 0513-4870
PUBLISHER: Yaoxue Xuebao Bianjibu
DOCUMENT TYPE: Journal; General Review
LANGUAGE: Chinese
AB A review with refs. on progress in structure modification of Triptolide with subdivision headings: (1) structural characteristics, physicochem. properties, and pharmacol. activity of Triptolide; (2) Triptolide derivative prepared by structural modification at different positions and their pharmacol. activities; (3) structure modified products from Triptolide analogs; and (4) conclusion.
IT 38748-32-2P, Triptolide
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(review structure modification of Triptolide)
RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L135 ANSWER 18 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:1226329 HCAPLUS Full-text
DOCUMENT NUMBER: 144:381583
TITLE: A novel artemisinin derivative, 3-(12-β-artemisininoxy) phenoxyl succinic acid (SM735), mediates immunosuppressive effects in vitro and in vivo
AUTHOR(S): Zhou, Wen-liang; Wu, Jin-ming; Wu, Qing-li; Wang, Jun-xia; Zhou, Yu; Zhou, Ru; He, Pei-lan; Li, Xiao-yu; Yang, Yi-fu; Zhang, Yu; Li, Ying; Zuo, Jian-ping
CORPORATE SOURCE: Laboratories of Immunopharmacology, Graduate School of the Chinese Academy of Sciences, State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, 201203, Peop. Rep. China
SOURCE: Acta Pharmacologica Sinica (2005), 26(11), 1352-1358
CODEN: APSCG5; ISSN: 1671-4083
PUBLISHER: Blackwell Publishing Asia Pty Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Aim: To study the immunosuppressive activity of SM735, a synthetic artemisinin derivative with nonsteroidal anti-inflammatory drug structure, with the aim of finding potential immunosuppressive agents. Methods: Con A (ConA), lipopolysaccharide (LPS), and mixed lymphocyte reaction (MLR), were used to induce the proliferation of splenocytes, and [3H]-thymidine incorporation was used to evaluate the proliferation of splenocytes. Cytokine production was promoted with ConA, LPS, or PMA plus ionomycin, and was detected with the ELISA. Dinitrofluorobenzene (DNFB) and sheep red blood cells (SRBC) were used to induce delayed-type hypersensitivity and quant. hemolysis of SRBC (QHS) mouse models, as criteria for the evaluation of in vivo immune activity. Results: SM735 strongly inhibited the proliferation of splenocytes induced by ConA, LPS, or MLR, with IC50 values of 0.33 μmol/L, 0.27 μmol/L, and 0.51 μmol/L, resp. When compared with a CC50 value of 53.1 μmol/L, SM735 had a favorable safety range. SM735 dose-dependently inhibited proinflammatory cytokine production [including interleukins (IL)-12, interferon (IFN)-γ and IL-6] induced by LPS or PMA plus ionomycin. Upon ConA stimulation, SM735 suppressed IFN-γ in a dose-dependent manner, but did not affect IL-2 secretion. SM735 also strongly suppressed both T-cell-mediated delayed-type hypersensitivity (DTH) and B-cell-mediated QHS reactions. Conclusion: SM735 had strong immunosuppressive activity in vitro and in vivo, suggesting a potential role for SM735 as an immunosuppressive agent, and established the groundwork for further research on SM735.

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

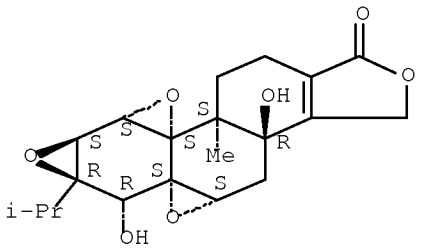
L135 ANSWER 19 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:1208878 HCAPLUS Full-text
DOCUMENT NUMBER: 144:381582
TITLE: Prevention of graft-versus-host disease by a novel immunosuppressant, (5R)-5-hydroxytriptolide (LLDT-8), through expansion of regulatory T cells
AUTHOR(S): Tang, Wei; Yang, Yang; Zhang, Fan; Li, Yuan-chao; Zhou, Ru; Wang, Jun-xia; Zhu, Yi-na; Li, Xiao-yu; Yang, Yi-fu; Zuo, Jian-ping
CORPORATE SOURCE: Laboratory of Immunopharmacology, Graduate School of the Chinese Academy of Sciences, State key laboratory of drug research, Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, 201203, Peop. Rep. China
SOURCE: International Immunopharmacology (2005), 5(13-14), 1904-1913
CODEN: IINMBA; ISSN: 1567-5769
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB (5R)-5-hydroxytriptolide (LLDT-8) is a new compound derived from triptolide, which is the major immunosuppressive fraction of Tripterygium wilfordii Hook. F (TWHF). In this study, we demonstrated that administration of LLDT-8 (1 g/kg/day, p.o.) effectively prevented weight loss and death induced by allo-BMT (BLAB/c, H-2d to C57BL/6, H-2b), and extended survival in allo-BMT model of aGVHD. Following days 7 to 28 after allo-BMT, the allogeneic graft survived by increasing the number of engrafted cells (H-2d) in spleens of recipient mice with LLDT-8 treatment. To construe the immunosuppressive effects of LLDT-8, the splenocytes (H-2d) of LLDT-8 treated recipients (H-2b) were tested for the proliferative responses to donor antigen (H-2d), host antigen (H-2b) and mitogen (ConA) stimulations, resp., the results indicated that LLDT-8 induced the T cells' unresponsiveness to donor and host antigens, while still maintaining response to ConA; Compared with the vehicle group of GVHD mice, administration of LLDT-8 significantly inhibited T cells to produce IFN-γ with or without host antigen or ConA stimulation. Further studies indicated LLDT-8 had a normalizing effect on the ratio of CD4+/CD8+ T cells, and increased CD4+CD25+ T regulatory cells with the Foxp3 expression in splenocytes from LLDT-8 treated mice. The results outline the great potential of LLDT-8 as a therapeutic tool to induce suppression in GVHD.

IT 583028-68-6, LLDT 8
RL: DMA (Drug mechanism of action); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prevention of graft-vs.-host disease by a novel immunosuppressant, (5R)-5-hydroxytriptolide (LLDT-8), through expansion of regulatory T cells)

RN 583028-68-6 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b,6-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 20 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:1208877 HCAPLUS Full-text
DOCUMENT NUMBER: 144:381581
TITLE: (5R)-5-hydroxytriptolide (LLDT-8), a novel triptolide analog mediates immunosuppressive effects in vitro and in vivo
AUTHOR(S): Zhou, Ru; Zhang, Fan; He, Pei-Lan; Zhou, Wen-Liang; Wu, Qing-Li; Xu, Jian-Yi; Zhou, Yu; Tang, Wei; Li, Xiao-Yu; Yang, Yi-Fu; Li, Yuan-Chao; Zuo, Jian-Ping
CORPORATE SOURCE: Laboratory of Immunopharmacology, Graduate School of the Chinese Academy of Sciences, State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, 201203, Peop. Rep. China
SOURCE: International Immunopharmacology (2005), 5(13-14), 1895-1903
CODEN: IINMBA; ISSN: 1567-5769
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB (5R)-5-hydroxytriptolide (LLDT-8) showed low cytotoxicity and relative high immunosuppressive activities as compared with its parent compound triptolide in vitro. The CC50 values of triptolide and LLDT-8 were 2.1±0.3 and 256.6±73.8 nM, resp. LLDT-8 significantly inhibited the proliferation of splenocytes induced by Con A (ConA), lipopolysaccharide (LPS), or mixed lymphocyte reaction (MLR), and the IC50 values were 131.7±32.4, 171.5±17.3, and 38.8±5.1 nM, resp. LLDT-8 (25, 50, 100 nM) dose-dependently reduced the production of Th1 type cytokines (IFN-γ, IL-2) and inflammatory cytokines (TNF-α, IL-6) in vitro. Administration of LLDT-8 (at the low dose of 0.4 μg/kg, i.p.; 40 μg/kg, p.o.) intensively suppressed 2,4-dinitrofluorobenzene (DNFB)-induced delayed type hypersensitivity (DTH) reactions. Treatment with LLDT-8 (40 μg/kg, i.p. and p.o.) also markedly inhibited the sheep red blood cell (SRBC)-induced antibody production in BLAB/c mice. Most importantly, comparing with triptolide, LLDT-8 significantly reduced toxicity, with a 122-fold lower cytotoxicity in vitro and 10-fold lower acute toxicity in vivo. The results suggested that LLDT-8 had immunosuppressive activities in both cellular and humoral immune responses. LLDT-8 might be a potential therapeutic agent for immune-related diseases.

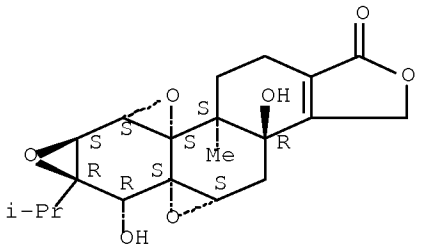
IT 583028-68-6
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

((5R)-5-hydroxytriptolide (LLDT-8), a novel triptolide analog mediates immunosuppressive effects in vitro and in vivo)

RN 583028-68-6 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b,6-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



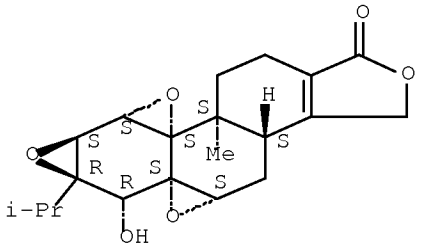
IT 38748-32-2, Triptolide

RL: PAC (Pharmacological activity); BIOL (Biological study)
(comparison standard; (5R)-5-hydroxytriptolide (LLDT-8), a novel triptolide analog mediates immunosuppressive effects in vitro and in vivo)

RN 38748-32-2 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 21 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:1117221 HCAPLUS Full-text

DOCUMENT NUMBER: 143:399815

TITLE: Immune inhibition of ethyl 6-amino-(R)-hydroxy-9H-purine-9-butyrate

INVENTOR(S): Zuo, Jianping; Yuan, Zhongsheng; Wu, Qingli; Ding, Jian; Yang, Yifu

PATENT ASSIGNEE(S): Shanghai Institute of Materia Medica, Chinese Academy of Sciences, Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 18 pp.
CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1565453	A	20050119	CN 2003-129337	20030618

PRIORITY APPLN. INFO.: CN 2003-129337 20030618

AB The invention relates to the immune inhibition of 6-amino-(R)-hydroxy-9H-purine-9-butyrate (DZ2002) which is a reversible inhibitor to S-Adenosyl-L-homocysteine hydrolase (SAHH). Several in vitro expts. and in vivo animal studies show that DZ2002 has effects in selectively inhibiting the function of macrophages, activating the function of B cells, and inhibiting cellular and humoral immunity. In addition, the therapeutic dose of DZ2002 is far below its toxic dose; thus DZ2002 has a higher therapeutic index.

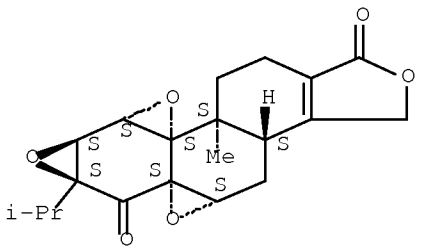
L135 ANSWER 22 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:604356 HCAPLUS Full-text
DOCUMENT NUMBER: 143:322309
TITLE: Diterpenoids from Tripterygium wilfordii Hook. F
AUTHOR(S): Chen, Yu; Yang, Guang-zhong; Zhao, Song; Li, Yuan-chao
CORPORATE SOURCE: Inst. Natl. Mater. Me, Coll. Chem. and Life Sci., South Central Univ. for Nationalities, Wuhan, 430074, Peop. Rep. China
SOURCE: Linchan Huaxue Yu Gongye (2005), 25(2), 35-38
CODEN: LHYGD7; ISSN: 0253-2417
PUBLISHER: Linchan Huaxue Yu Gongye Bianji Weiyuanhui
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB To study the active principles in-root core of Tripterygium wilfordii Hook. f., eleven diterpenoid compds. were isolated from this plant by silica gel column chromatog. Their structures were identified as triptoquinone A (1), hypoglic acid (2), triptoquine (3), isoneotriptophenolide (4), hypolide (5), triptonoterpene Me ether (6), triptriolide (7), triptonide (8), triptolide (9), tripterfordin (10), 11-O-β-D-glucopyranosyl-neotritophenolide (11). Compound 11 is a novel compound

IT 38647-11-9P, Triptonide 38748-32-2P, Triptolide
RL: PRP (Properties); PUR (Purification or recovery); PREP (Preparation)
(diterpenoids from Tripterygium wilfordii Hook. F)

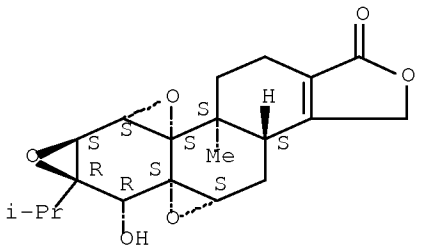
RN 38647-11-9 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1,6(3H,6aH)-dione, 3b,4,4a,7a,7b,8b,9,10-octahydro-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6aS,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



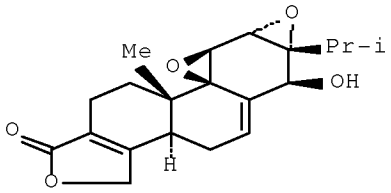
L135 ANSWER 23 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:413527 HCAPLUS Full-text
DOCUMENT NUMBER: 143:53143
TITLE: Inhibition of S-adenosyl-L-homocysteine hydrolase induces immunosuppression
AUTHOR(S): Wu, Qing-Li; Fu, Yun-Feng; Zhou, Wen-Liang; Wang, Jun-Xia; Feng, Yong-Hong; Liu, Jing; Xu, Jian-Yi; He, Pei-Lan; Zhou, Ru; Tang, Wei; Wang, Gui-Feng; Zhou, Yu; Yang, Yi-Fu; Ding, Jian; Li, Xiao-Yu; Chen, Xiao-Ru; Yuan, Chong; Lawson, Brian R.; Zuo, Jian-Ping
CORPORATE SOURCE: Laboratory of Immunopharmacology and State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, Peop. Rep. China
SOURCE: Journal of Pharmacology and Experimental Therapeutics (2005), 313(2), 705-711
CODEN: JPETAB; ISSN: 0022-3565
PUBLISHER: American Society for Pharmacology and Experimental Therapeutics
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Lymphocytes depend on transmethylation reactions for efficient activation and function. These reactions are primarily catalyzed by S-adenosylmethionine-dependent methyltransferases, which convert S-adenosylmethionine to S-adenosyl-L-homocysteine. S-adenosyl-L- homocysteine is then hydrolyzed by S-adenosyl-L-homocysteine hydrolase to prevent feedback inhibition of transmethylation reactions. By impeding S-adenosyl-L-homocysteine hydrolase, a build-up of S-adenosyl-L- homocysteine occurs, and most intracellular transmethylation reactions cease. Thus, a nontoxic inhibitor of this enzyme might be a useful immunosuppressive therapeutic agent. We identified a potent reversible type III inhibitor of S-adenosyl-L-homocysteine hydrolase, DZ2002 [methyl 4-(adenin-9-yl)-2-hydroxybutanoate], and determined its cytotoxic and immunol. effects. We demonstrated that DZ2002 blocked S-adenosyl-L-homocysteine hydrolase more effectively than a type I inhibitor, but cytotoxicity from DZ2002 was greatly reduced. Although DZ2002 did not prevent Con A-induced T cell proliferation or interleukin (IL)-2 production, it significantly reduced both a mixed lymphocyte reaction and IL-12 production from in vitro-stimulated splenocytes. In addition, levels of CD80 and CD86 on

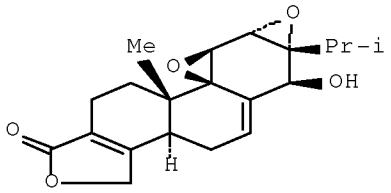
human monocytic THP-1 cells were decreased in a dose-dependent manner in the presence of 0.1 to 10 μM DZ2002, and decreases were also seen in IL-12 and tumor necrosis factor-α production from both mouse thioglycollate-stimulated peritoneal macrophages and THP-1 cells. In vivo, DZ2002 significantly suppressed a delayed-type hypersensitivity reaction as well as antibody secretion. We conclude that DZ2002's immunosuppressive effects are likely not solely attributed to T cell inhibition but also to the obstruction of macrophage activation and function through redns. in cytokine output and/or T cell costimulation. These data suggest an important dual role for the S-adenosyl-L- homocysteine hydrolase in both macrophage and T cell function.

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 24 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:264981 HCAPLUS Full-text
DOCUMENT NUMBER: 143:306433
TITLE: Synthesis of the analogs of triptolide: 7,8-deoxytriptolide, 7α,8α-epoxytriptolide and related ketones
AUTHOR(S): Zhang, Fan; Li, Yuan Chao
CORPORATE SOURCE: Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, 201203, Peop. Rep. China
SOURCE: Chinese Chemical Letters (2005), 16(2), 205-208
CODEN: CCLEE7; ISSN: 1001-8417
PUBLISHER: Chinese Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 143:306433
GI



I



II

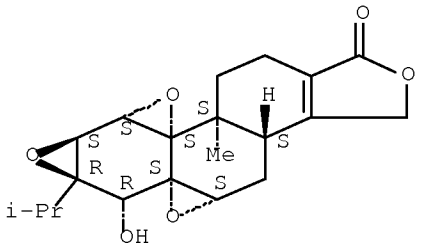
AB Two novel analogs I and II of triptolide were synthesized using triptolide as the starting material through reductive opening of epoxy ring, hydration and olefin epoxidn., and related ketones have also been afforded by oxidation of them with IBX or Jones' reagent.

IT 38748-32-2, Triptolide
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of analogs of triptolide, 7,8-deoxytriptolide, 7α,8α-epoxytriptolide and related ketones)

RN 38748-32-2 HCAPLUS

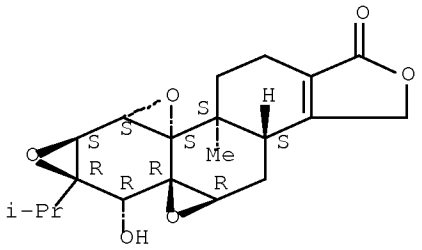
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



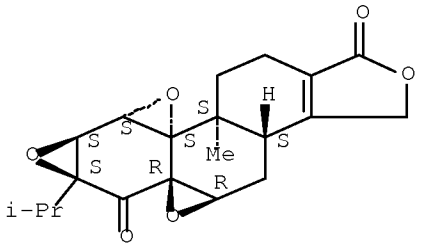
IT 864721-95-9P, 7α,8α-Epoxytriptolide
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of analogs of triptolide, 7,8-deoxytriptolide, 7α,8α-epoxytriptolide and related ketones)
RN 864721-95-9 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aR,5aR,6R,6aR,7aS,7bS,8aS,8bS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 864722-01-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of analogs of triptolide, 7,8-deoxytriptolide, 7α,8α-epoxytriptolide and related ketones)
RN 864722-01-0 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1,6(3H,6aH)-dione, 3b,4,4a,7a,7b,8b,9,10-octahydro-8b-methyl-6a-(1-methylethyl)-, (3bS,4aR,5aR,6aS,7aS,7bS,8aS,8bS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

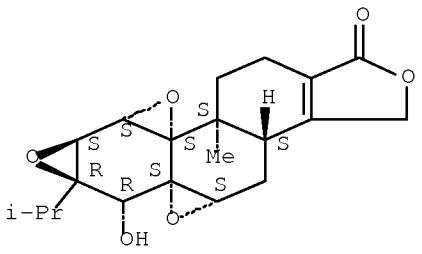
L135 ANSWER 25 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:142039 HCAPLUS Full-text
DOCUMENT NUMBER: 142:309480
TITLE: Triptolide suppresses CD80 and CD86 expressions and IL-12 production in THP-1 cells
AUTHOR(S): Liu, Jing; Wu, Qing-li; Feng, Yong-hong; Yang, Yi-fu; Li, Xiao-yu; Zuo, Jian-ping
CORPORATE SOURCE: State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, 201203, Peop. Rep. China
SOURCE: Acta Pharmacologica Sinica (2005), 26(2), 223-227
CODEN: APSCG5; ISSN: 1671-4083
PUBLISHER: Blackwell Publishing Asia Pty Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB To investigate the effects of triptolide, a diterpenoid triepoxide from Tripterygium wilfordii Hook F (TWHF), on the co-stimulatory mol. expression and interleukin-12 (IL-12) production from THP-1 cells. THP-1 cells were differentiated into macrophage-like cells by Me2SO, and then cultured with IFN-γ (500 kU/L) and lipopolysaccharide (LPS) (1 mg/L) with or without triptolide. The surface mol. expressions were analyzed on a FACScan flow cytometer. IL-12p40, IL-12p70 were assayed by ELISA. Tripolide suppressed CD80 and CD86 expressions on IFN-γ (500 kU/L) and LPS (1 mg/L) activated THP-1 cells at nontoxic dosages of 2.5-0.625 μg/L. Furthermore, the production of IL-12p40 and IL-12p70 were also significantly reduced in THP-1 cells exposed to triptolide. Triptolide impairs the antigen-presenting function by inhibiting CD80 and CD86 expressions and decreased IL-12p40 and IL-12p70 (bioactive form) productions from the activated THP-1 cells.

IT 38748-32-2, Triptolide
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(triptolide suppresses CD80 and CD86 expressions and IL-12 production in THP-1 cells)

RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 26 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:1645 HCAPLUS Full-text
DOCUMENT NUMBER: 143:63578
TITLE: Magnetoelastic nanocrystalline Co-Ni alloys
AUTHOR(S): Kong, H. Z.; Wee, A. T. S.; Ding, J.; Li, Y.; Liu, Y.
CORPORATE SOURCE: NUS Nanoscience and Nanotechnology Initiative, National University of Singapore, Singapore, 119260, Singapore
SOURCE: International Journal of Nanoscience (2004), 3(4 & 5), 615-623
CODEN: IJNNAJ; ISSN: 0219-581X
PUBLISHER: World Scientific Publishing Co. Pte. Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Magnetization of Co-Ni cast plates underwent an abrupt change at 32 atomic% Ni due to a phase transformation. The strain value for Co-32 atomic% Ni alloy cast plate increased from 54 to 850 με as temperature decreased to 150 K. Phase formation in the thin film is dependent on the deposition conditions.
REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 27 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:1103702 HCAPLUS Full-text
DOCUMENT NUMBER: 142:273394
TITLE: Anti-SARS virus action of natural marine substance: bryostatin
AUTHOR(S): Yi, Yanghua; Sun, Peng; Zuo, Jianping; Lin, Houwen; Li, Ling; Tang, Haifeng; Ding, Jian; Nan, Fajun
CORPORATE SOURCE: Research Center for Marine Drugs. School of Pharmacy, Second Military Medical University, Shanghai, 200433, Peop. Rep. China
SOURCE: Dier Junyi Daxue Xuebao (2003), 24(8), 821-822
CODEN: DJXUE5; ISSN: 0258-879X
PUBLISHER: Dier Junyi Daxue Xuebao Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB The anti-SARS virus effect of total bryostatins, a mixture of 9 bryostatins isolated from marine animal Bugula neritina were observed Vero-E6 cells were used as SARS virus host cells. Cytopathic effect (CPE) and cell protection rate (CPR) were used to determine the protective effects of total bryostatins against SARS virus. Bryostatins at 4, 20 and 100 μg/mL were tested sep. in 2 expts. In the prevention test, CPE were ++++, ++++, ++; CPR was 7%, 6%, 39%; in the treatment test, CPE were +++, ++, ++; CPR were 33%, 58%, 40%. Concentration over 4 μg/mL had anti-SARS activity and protection action for SARS-infected cell.

L135 ANSWER 28 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:337916 HCAPLUS Full-text
DOCUMENT NUMBER: 141:151902
TITLE: One hundred and one new microsatellite loci derived from ESTs (EST-SSRs) in bread wheat
AUTHOR(S): Gao, L. F.; Jing, R. L.; Huo, N. X.; Li, Y.; Li, X. P.; Zhou, R. H.; Chang, X. P.; Tang, J. F.; Ma, Z. Y.; Jia, J. Z.

CORPORATE SOURCE: Institute of Crop Germplasm Resources, Key Laboratory of Crop Germplasm and Biotechnology, Ministry of Agriculture, Chinese Academy of Agricultural Sciences, Beijing, 100081, Peop. Rep. China
SOURCE: Theoretical and Applied Genetics (2004), 108(7), 1392-1400
CODEN: THAGA6; ISSN: 0040-5752
PUBLISHER: Springer-Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Four hundred and seventy-eight microsatellite markers derived from expressed sequence tags (EST-SSRs) were screened among three mapping populations (W-7984×Opata 85, WOpop; Lumai×Hanxuan, LHpop; Wenmai×Shanhongmai, WSpop). The number of polymorphic EST-SSR primer pairs found in WOpop, LHpop and WSpop was 92, 58 and 29 resp. A total of 101 EST-SSR loci amplified from 88 primer sets were distributed over the 20 chromosomes of the reference maps (no markers were located on chromosome 4B). These 101 mapped EST-SSR markers add to the existing 450 microsatellite loci previously mapped in bread wheat. Seventy-four of the 101 loci showed significant similarities to known genes, including 24 genes involved in metabolism, 4 in cellular structures, 9 in stress resistance, 12 in transcription, 2 in development, 2 transporters and 21 storage proteins. Besides gliadin and glutenin, most of the 53 genes with putative functions were mapped for the first time by EST-SSR markers in bread wheat. Sequence alignment of the mapped wheat EST-SSR loci allowed tentative assignment of functionality to the other members of grasses family. Colinearity combined with homol. information offers an attractive approach to comparative genomics.

REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 29 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:297287 HCAPLUS Full-text
DOCUMENT NUMBER: 141:30665
TITLE: Low-threshold amplified spontaneous emission and laser emission in a polyfluorene derivative
AUTHOR(S): Liu, X.; Py, C.; Tao, Y.; Li, Y.; Ding, J.; Day, M.
CORPORATE SOURCE: Institute for Microstructural Sciences, National Research Council of Canada, K1A 0R6, Can.
SOURCE: Applied Physics Letters (2004), 84(15), 2727-2729
CODEN: APPLAB; ISSN: 0003-6951
PUBLISHER: American Institute of Physics
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The amplified spontaneous emission (ASE) and lasing properties of a fluorene copolymer PF3Cz film waveguide were studied under optical pumping. Low ASE and lasing threshold were observed at 59 W/cm2/pulse and 1.7 KW/cm2/pulse, resp. The stimulated emission cross section of the PF3Cz film is .apprx.1.6 × 10-16 cm2 at the ASE peak of 448 nm. The absorption cross section is 2.8 × 10-16 cm2 at the absorption peak λ = 370 nm. Gain and loss measurements at the ASE peak showed that the net gain coefficient reaches 26 ± 1.7 cm-1 when pumped at 1.4 KW/cm2, and the loss coefficient of the waveguide was .apprx.13 ± 1.1 cm-1.

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 30 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:746041 HCAPLUS Full-text

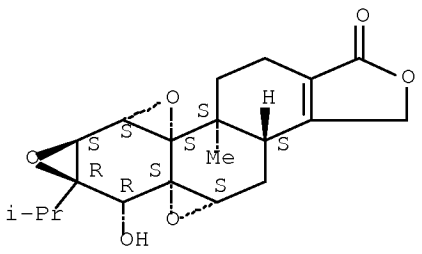
DOCUMENT NUMBER: 139:359747
TITLE: Analysis of triptolide-regulated gene expression in Jurkat cells by complementary DNA microarray
AUTHOR(S): Du, Ze-Ying; Li, Xiao-Yu; Li, Yuan-Chao; Wang, Shun-You
CORPORATE SOURCE: Department of Pharmacology, Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, 200031, Peop. Rep. China
SOURCE: Acta Pharmacologica Sinica (2003), 24(9), 864-872
CODEN: APSCG5; ISSN: 1671-4083
PUBLISHER: Science Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB To investigate the global gene expression profile changes in Jurkat cells after triptolide treatment in order to find the possible triptolide targets. Jurkat cells were treated with or without triptolide 10 μg/L for 2 h. Total RNA were isolated and used as templates for reverse transcriptional labeling of fluorescent cDNA probes. High d. DNA microarray chips with a set of 13 872 human genes/Ests were used to generate the expression profile of triptolide-treated or untreated control Jurkat cells by hybridizing with fluorescent labeled probes. Array image was acquired and analyzed with array analyzing software GeneSpring. Triptolide significantly suppressed expression of 117 genes in Jurkat cells. Among these 117 genes, 30 % were Ests or genes without known functions, 13 % were transcription factors, 9 % were signal transduction pathway regulators, and 9 % were DNA binding proteins. Notably, the expression of mitogen-activated protein kinase kinase kinase kinase 5 (MAP kinase 5) and phosphoinositide-3-kinase (PI-3 kinase) was inhibited more than 100-fold. Moreover, the expression of genes involved in lipid transportation and metabolism was down-regulated by triptolide. High-d. microarray provided an effective approach to identify drug targeting mols. It is suggested that the widely known immune suppressive and antitumor effects of triptolide were mediated at least in part by suppression of MAP kinase and PI-3 kinase gene expression.

IT 38748-32-2, Triptolide
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(anal. of triptolide-regulated gene expression in Jurkat cells by complementary DNA microarray)

RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



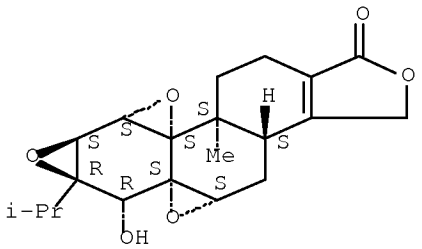
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 31 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:667742 HCAPLUS Full-text
DOCUMENT NUMBER: 140:138967
TITLE: The suppressive effect of triptolide on experimental autoimmune uveoretinitis by down-regulating Th1-type response
AUTHOR(S): Wu, Yadi; Wang, Yanping; Zhong, Cuiping; Li, Yuanchao; Li, Xiaoyu; Sun, Bing
CORPORATE SOURCE: Institute of Biochemistry and Cell Biology, The Laboratory of Molecular Immunology, Chinese Academy of Sciences, Shanghai, 200031, Peop. Rep. China
SOURCE: International Immunopharmacology (2003), 3(10-11), 1457-1465
CODEN: IINMBA; ISSN: 1567-5769
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB We investigated the suppressive effect of triptolide (TRD), a purified component from a traditional Chinese herb, Tripterygium wilfordii Hook F. (TWHf), on uveitogenic peptide (K2)-induced exptl. autoimmune uveoretinitis (EAU). K2-peptide immunized B10.A mice were divided into four groups. One group was EAU control which was treated with PBS. The other two groups were treated with TRD with different time courses (from day 0 to day 28 and from day 14 to day 28). The last group was treated with Cyclosporin A (CsA) as a pos. control of the treatment. TRD was administered at dose of 0.1 mg/kg/day (i.p.). CsA was administered at dose of 20 mg/kg/day (i.p.) from day 0 to day 28 during whole period of EAU induction. The data showed that the EAU was suppressed in the whole period of TRD-treated mice, but was not in TRD-treated mice from day 14 to day 28 following immunization. The inhibition of EAU induced by TRD treatment was comparable to CsA-treated mice. The K2-specific lymphocyte proliferation and mRNA expressions of Th1-type cytokines (IL-12p40, IFN-γ and TNF-α) in draining lymph node and inflamed eyes were reduced in TRD-treated mice. The K2-specific IFN-γ production in the draining lymph node cells (LNC) of TRD-treated mice (whole period) was significantly inhibited. This effect was not related to an apoptotic effect of TRD on CD4+ T cells. Our results suggested that TRD suppressed the induction of EAU by down-regulating Th1-type response in B10.A mice. This preventive effect on EAU induction may be related to the inhibition of TRD on T cell priming and activation.

IT 38748-32-2, Triptolide
RL: FMU (Formation, unclassified); NPO (Natural product occurrence); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); USES (Uses)
(suppressive effect of triptolide on exptl. autoimmune uveoretinitis by down-regulating Th1-type response)
RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 32 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:446080 HCAPLUS Full-text
DOCUMENT NUMBER: 139:258984
TITLE: Diagnostic value of protein induced by vitamin K absence (PIVKAII) and hepatoma-specific band of serum gamma-glutamyl transferase (GGTII) as hepatocellular carcinoma markers complementary to α-fetoprotein
AUTHOR(S): Cui, R.; He, J.; Zhaog, F.; Wang, B.; Ding, H.; Shen, H.; Li, Y.; Chen, X.
CORPORATE SOURCE: Beijing Friendship Hospital, Liver Research Center, Capital University of Medical Science, Beijing, 100050, Peop. Rep. China
SOURCE: British Journal of Cancer (2003), 88(12), 1878-1882
CODEN: BJCAAI; ISSN: 0007-0920
PUBLISHER: Nature Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Serum protein induced by vitamin K absence or antagonist II (PIVKAII), hepatoma-specific band of serum gamma-glutamyl transferase (GGTII), and α-fetoprotein (AFP) levels were determined in 120 patients with hepatocellular carcinoma (HCC) and 90 patients with cirrhosis. The mean serum concentration of PIVKAII in HCC patients was higher than that in cirrhotic patients. A total of 53.3% of patients (64 out of 120) with HCC had PIVKAII levels above 40 mAU ml-1. However, only 13 patients with cirrhosis had higher PIVKA II levels. Of 32 small HCC patients, 13 (40.6%) had PIVKAII values above 40 mAU ml-1. An increased concentration of AFP (i.e. 20 ng ml-1) was observed in 70 out of 120 (58.3%) patients with HCC and in 33 out of 90 (36.7%) patients with cirrhosis. Pos. GGTII was found in 74.0% (89 out of 120) cases of HCC (sensitivity), in 16 of 90 cases of cirrhosis, and 14 of 32 (43.8%) small HCC patients had GGTII pos. No significant correlation was found between serum levels of AFP and PIVKAII. Combining the information from PIVKAII, AFP, and GGTII significantly increases the sensitivity over AFP alone. PIVKAII and GGTII are useful tumor markers complementary to AFP for diagnosis of HCC.
REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 33 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:545905 HCAPLUS Full-text
DOCUMENT NUMBER: 137:272064
TITLE: Magnetic properties and magnetic entropy change of amorphous and crystalline GdNiAl ribbons
AUTHOR(S): Si, L.; Ding, J.; Li, Y.; Yao, B.; Tan, H.
CORPORATE SOURCE: Department of Materials Science, Faculty of Science,

National University of Singapore, Singapore, 119260, Singapore
SOURCE: Applied Physics A: Materials Science & Processing (2002), 75(4), 535-539
CODEN: APAMFC; ISSN: 0947-8396
PUBLISHER: Springer-Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The structure and magnetic properties of amorphous melt-spun and subsequently crystallized GdNiAl ribbons were studied. An amorphous phase was formed after the quenching process by melt spinning with a copper wheel having a surface speed of 30 m/s. A hexagonal phase with lattice parameters a 7.023 and c 3.916 Å was formed in the GdNiAl ribbon after annealing above its crystallization temperature Magnetic entropy change was calculated directly from isothermal magnetic measurements. The results show that both the amorphous and annealed samples have a high magnetocaloric effect, indicating that these alloys can be considered as candidates for magnetic refrigeration applications.
REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 34 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:432843 HCAPLUS Full-text
DOCUMENT NUMBER: 137:271920
TITLE: A structural, magnetic and microwave study on mechanically milled Fe-based alloy powders
AUTHOR(S): Ding, J.; Shi, Y.; Chen, L. F.; Deng, C. R.; Fuh, S. H.; Li, Y.
CORPORATE SOURCE: Department of Materials Science, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Journal of Magnetism and Magnetic Materials (2002), 247(3), 249-256
CODEN: JMMMDC; ISSN: 0304-8853
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Fe90M10 powders with M = Fe, Co, Ni, Si, Al, Gd, Dy, and Nd were prepared by mech. milling. Their structure and magnetic properties were investigated. Microwave measurements were performed on the mech. milled Fe90M10 powders. The results were compared with those of Cl Fe powders and coarse Fe powder. Fine nanocryst. Fe-based alloy powders prepared by mech. milling are promising for microwave applications.
REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 35 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:331518 HCAPLUS Full-text
DOCUMENT NUMBER: 137:27178
TITLE: Observation of clusters in RE60Fe30Al10 alloys and the associated magnetic properties
AUTHOR(S): Kong, H. Z.; Ding, J.; Dong, Z. L.; Wang, L.; White, T.; Li, Y.
CORPORATE SOURCE: Materials Science Department, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Journal of Physics D: Applied Physics (2002), 35(5), 423-429
CODEN: JPAPBE; ISSN: 0022-3727
PUBLISHER: Institute of Physics Publishing

DOCUMENT TYPE: Journal
LANGUAGE: English
AB Magnetic properties and microstructure of melt-spun ribbons of RE60Fe30Al10 alloys with RE = Nd, Sm, Dy, Gd and Y were studied. High coercivity values in the range of MA m-1 were observed at low temps. for amorphous ribbons. Presence of Fe-rich clusters and nanoscale rare-earth crystallites in the amorphous matrix in the ribbons were revealed by high-resolution TEM studies. The magnetic transition temps. were estimated exptl. and compared with fitting results based on the cluster ferromagnetism model. Possible mechanisms for the magnetic behavior observed due to the presence of Fe-rich magnetic clusters are discussed.
REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 36 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:838334 HCAPLUS Full-text
DOCUMENT NUMBER: 136:176795
TITLE: Monte Carlo simulation of a cluster system with strong interaction and random anisotropy
AUTHOR(S): Wang, L.; Ding, J.; Kong, H. Z.; Li, Y.; Feng, Y. P.
CORPORATE SOURCE: Department of Physics, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Physical Review B: Condensed Matter and Materials Physics (2001), 64(21), 214410/1-214410/10
CODEN: PRBMDO; ISSN: 0163-1829
PUBLISHER: American Physical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The Monte-Carlo method is used to study magnetic properties of amorphous rare-earth (RE) and transition-metal alloys, based on a model in which the magnetic units are magnetic clusters. Each cluster is assumed to possess a certain magnetic moment, which decreases with increasing temperature, and a Curie temperature Tccluster. A random distribution is assumed for the magnetic easy directions of the clusters. Monte-Carlo simulations were carried out to simulate magnetization curves after zero-field cooling and magnetic hysteresis loops at different temps. The simulation results showed the presence of two other critical temps. Tblock and Tcsystem below Tccluster. Here, Tblock is the blocking temperature due to the anisotropy energy of the clusters, while Tcsystem is the freezing temperature due to interactions between clusters. If Tcsystem is lower than Tblock, the system behaves as a normal superparamagnetic material, characterized by a relatively weak effect of cluster correlation and/or dipole interaction. If Tcsystem is higher than Tblock, as in the case of many amorphous rare-earth and transition-metal alloys, it is possible to have three magnetic states, depending on the temperature: ferromagnetism when T < Tcsystem, superparamagnetism with correlation when Tcsystem < T < Tccluster, and paramagnetism when T > Tccluster. The freezing due to cluster interactions is characterized by a significant increase of remanence, while high coercivity is obtained below Tblock. The simulation results are compared with exptl. measurements. The magnetic behaviors of amorphous rare-earth and transition-metal alloys are well described by the model.
REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 37 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:589377 HCAPLUS Full-text
DOCUMENT NUMBER: 135:326325
TITLE: A model for magnetic ordering in inhomogeneous

amorphous RE-Fe-Al alloys
AUTHOR(S): Wang, L.; Ding, J.; Li, Y.; Feng, Y. P.; Phuc, N. X.; Dan, N. H.
CORPORATE SOURCE: Department of Physics, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Journal of Magnetism and Magnetic Materials (2001), 226-230(Pt. 2), 1504-1506
CODEN: JMMMDC; ISSN: 0304-8853
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The magnetic measurements on amorphous RE60Fe30Al10 with RE = Nd and Y indicated the presence of clusters in amorphous rare earth (RE) and transition metal alloys. A model for magnetic ordering was proposed for the inhomogeneous amorphous ferromagnets. This model was based on Langevin function of small magnetic clusters with strong interactions. The strong interactions could result in ferromagnetic coupling of the clusters below its critical temperature (Tcsystem), therefore termed as cluster ferromagnetism. The magnetization curves of the samples could be well described with the cluster ferromagnetic model.
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 38 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:502286 HCAPLUS Full-text
DOCUMENT NUMBER: 135:344601
TITLE: Synthesis and cytotoxicity of artemisinin derivatives containing cyanoarylmethyl group
AUTHOR(S): Wu, J.-M.; Shan, F.; Wu, G.-S.; Li, Y.; Ding, J.; Xiao, D.; Han, J.-X.; Atassi, G.; Leonce, S.; Caignard, D.-H.; Renard, P.
CORPORATE SOURCE: Shanghai Institutes for Biological Sciences, Shanghai Institute of Materia Medica, Department of Synthetic Chemistry, Chinese Academy of Sciences, Shanghai, 200031, Peop. Rep. China
SOURCE: European Journal of Medicinal Chemistry (2001), 36(5), 469-479
CODEN: EJMCA5; ISSN: 0223-5234
PUBLISHER: Editions Scientifiques et Medicales Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 135:344601
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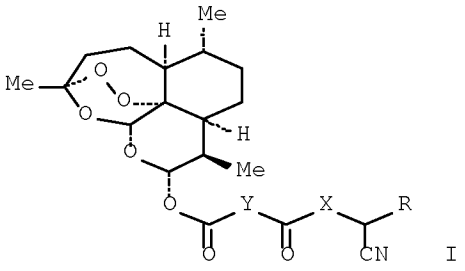

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AB A series of 12α-deoxoartemisinyl cyanoarylmethyl dicarboxylates, dicarboxylic acids 12α-deoxoartemisinyl ester cyanoarylmethyl amide, and dicarboxylic acids 12α-deoxoartemisinyl ester N-methylcyanoarylmethyl amide, I (Y = (CH2)2, (CH2)4, (CH2)5, (CH2)7; X = O, NH, NMe) showing moderate cytotoxicity against P388 and L1210 cells were prepared They induced the significant accumulation of L1210 and P388 cells in the G1 phase of the cell cycle. This mechanism of action was quite different from that of the majority of cytotoxic compds. used in the chemotherapy of cancer. Compound I possessed better cytotoxicity than the other compds.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 39 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:436035 HCAPLUS Full-text
DOCUMENT NUMBER: 135:146024
TITLE: Bulk hard magnetic alloys in Nd-Fe-B system prepared by casting and melt spinning
AUTHOR(S): Kong, H. Z.; Ding, J.; Wang, L.; Li, Y.
CORPORATE SOURCE: Department of Materials Science, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Materials Transactions (2001), 42(4), 674-677
CODEN: MTARCE; ISSN: 1345-9678
PUBLISHER: Japan Institute of Metals
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Cylindrical cast rods and melt-spun ribbons of Nd60Fe30B10 and two Nd67Fe26B7 and Nd10Fe73B17 eutectic alloys were prepared by copper mold casting and melt spinning. Coercivity of the as-cast Nd60Fe30B10 rod was 434 kA/m. Coercivity of the cast rod was increased to 1285.6 kA/m after annealing due to the formation of Nd2Fe14B phase. The as-cast eutectic Nd67Fe26B7 rod, which is partially amorphous, exhibited coercivity value identical to that of the alloy Nd60Fe30B10 (.apprx.430 kA/m). However, eutectic Nd10Fe73B17 shows better glass forming ability, but lower coercivity (.apprx.100 kA/m).

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 40 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:436033 HCAPLUS Full-text
DOCUMENT NUMBER: 135:145973
TITLE: Structure and magnetic properties of chill-cast and melt-spun Ndx(Fe3Al)100-x and Nd33(FeyAl)67 alloys
AUTHOR(S): Si, L.; Ding, J.; Li, Y.; Yao, B.
CORPORATE SOURCE: Department of Materials Science, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Materials Transactions (2001), 42(4), 664-669
CODEN: MTARCE; ISSN: 1345-9678
PUBLISHER: Japan Institute of Metals
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The magnetic properties of chill-cast Nd-Fe-Al rods were studied as a function of Nd and Al concns. High coercivities were obtained in Nd60(Fe3Al)40, Nd50(Fe3Al)50 and Nd33(Fe10Al)67 alloys. The study on the melt-spun ribbons of these alloys showed that coercivity is dependent on the quenching rate, and high coercivity could only be obtained in alloys prepared after a relatively low quenching rate. Several crystalline Nd-Fe-Al phases were studied. A metastable tetragonal phase existed as nearly the single phase in

Nd33(FeyAl)67 with y = 2-4. The tetragonal phase is antiferromagnetic with a Neel temperature of 260 K. Metamagnetism and magnetoresistivity were observed The study on the annealed Nd33(FeAl)67 alloy showed that a hexagonal phase and an unknown were formed and these two Fe-containing phases, among which one is an antiferromagnetic with a Neel temperature of 280 K and the another is ferromagnetic <130-140 K.

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 41 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:422390 HCAPLUS Full-text
DOCUMENT NUMBER: 135:131071
TITLE: Model of ferromagnetic clusters in amorphous rare earth and transition metal alloys
AUTHOR(S): Wang, L.; Ding, J.; Li, Y.; Feng, Y. P.; Phuc, N. X.; Dan, N. H.
CORPORATE SOURCE: Department of Physics, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Journal of Applied Physics (2001), 89(12), 8046-8053
CODEN: JAPIAU; ISSN: 0021-8979
PUBLISHER: American Institute of Physics
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Exptl. results on amorphous rare earth and transition metal alloys suggest Fe-rich clusters. A model is proposed in which the magnetic units are magnetic clusters. The magnetization of the clusters decreases with the increase of temperature In this model, there are 2 critical temps., Tcsystem and Tccluster. Tccluster is the Curie temperature of the magnetic clusters, which is also the Curie temperature of the sample. Tcsystem is the measurement of the strength of interactions between clusters. Between Tccluster and Tcsystem, the system exhibits superparamagnetism with strong cluster interactions. The strong cluster interactions result in the ferromagnetic state below the critical temperature (Tcsystem), which is called a cluster ferromagnetism. The exptl. data (magnetization curves and susceptibility values of amorphous Y60Fe30Al10 and Nd60Fe30Al10 ribbons) support the cluster ferromagnetic model. The zero temperature coercivity and the relation between Tblock and Tcsystem are also discussed in this article.

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 42 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:353754 HCAPLUS Full-text
DOCUMENT NUMBER: 135:115742
TITLE: Structure and magnetic properties of melt-spun Nd33(FexAl)67 alloys
AUTHOR(S): Si, L.; Ding, J.; Li, Y.; Wang, X. Z.
CORPORATE SOURCE: Department of Materials Science, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Materials Science Forum (2001), 360-362(Metastable, Mechanically Alloyed and Nanocrystalline Materials), 553-558
CODEN: MSFOEP; ISSN: 0255-5476
PUBLISHER: Trans Tech Publications Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Structural and magnetic properties of melt-spun and annealed ribbons with the compns. Nd33(FexAl)67 (x = 1, 2, 3, and 4) were studied. XRD and DSC results show that an amorphous structure was formed during melt spinning with a wheel

surface speed of 30 m/s. Several crystalline Nd-Fe-Al phases were found after annealing. A tetragonal phase with a = 9.778 and c = 11.516 Å was formed in the Nd33(FexAl)67 (x = 2, 3, and 4) alloys after melt-spinning and annealing at 873 K. This phase is antiferromagnetic with a Neel temperature of 260 K. Metamagnetism was observed at a temperature of 140 K or below. Annealing Nd33(FeAl)67 alloy show the formation of a hexagonal phase with lattice parameters a = 5.5111 and c = 8.7448 Å. The magnetic measurement show that the annealed sample exhibited a hard magnetic behavior at low temps. with a Curie temperature of 110 K and a Neel temperature of 260 K and a coercivity of 529 kA/m at 4.2 K. The magnetic entropy change was calculated from directly isothermal magnetic measurements. The results showed that the amorphous alloy had a relatively higher magnetocaloric effect than the annealed sample, indicating that it can be considered as a candidate for magnetic refrigeration applications.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 43 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:277012 HCAPLUS Full-text
DOCUMENT NUMBER: 134:328819
TITLE: Ultrafine NiO-La2O3-Al2O3 aerogel: a promising catalyst for CH4/CO2 reforming
AUTHOR(S): Xu, Z.; Li, Y.; Zhang, J.; Chang, L.; Zhou, R.; Duan, Z.
CORPORATE SOURCE: Department of Chemical Engineering, Tsinghua University, Beijing, 100084, Peop. Rep. China
SOURCE: Applied Catalysis, A: General (2001), 213(1), 65-71
CODEN: ACAGE4; ISSN: 0926-860X
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A newly designed ultrafine NiO-La2O3-Al2O3 aerogel catalyst has been successfully prepared by the combination of sol-gel method and supercrit. drying (SCD) technique for CH4/CO2 reforming. Compared to the conventional impregnated catalyst, it exhibits unusual phys. and chemical properties, as manifested in very large sp. surface area, well-defined pore size distribution and good textural stability. Very high activity and at the same time very low carbon deposition were also observed It more easily forms homogeneously distributed NiAl2O4 spinel in aerogel catalyst at low heat treatment temperature and has much higher capacity to adsorb CO2, which may be mainly responsible for its excellent catalytic performance and insensitive to carbon deposition.
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 44 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:254296 HCAPLUS Full-text
DOCUMENT NUMBER: 134:330020
TITLE: Magnetic hardening in amorphous alloy Sm60Fe30Al10
AUTHOR(S): Kong, H. Z.; Li, Y.; Ding, J.
CORPORATE SOURCE: Materials Science Department, National University of Singapore, 119260, Singapore
SOURCE: Scripta Materialia (2001), 44(5), 829-834
CODEN: SCMAF7; ISSN: 1359-6462
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The effects of Sm substitution for Nd on the microstructure and magnetic properties of melt-spun, hard magnetic amorphous Nd60Fe30Al10 were investigated to verify the effect of the inhomogeneous amorphous phase (or formation of clusters) on the magnetic properties of this compound Ribbons of Sm60Fe30Al10 melt-spun at low speeds (5 and 10 m/s) consisted of Sm phases and an amorphous matrix, while those melt-spun at high speeds (15 and 30 m/s) were fully amorphous. Room-temperature coercivity of all the melt-spun ribbons and a cast rod of Sm60Fe30Al10 were lower than that of alloy Nd60Fe30Al10. The ribbon melt-spun at a speed of 30 m/s exhibited superparamagnetic behavior at room temperature, probably caused by the presence of Fe-rich ferromagnetic clusters. Transition from superparamagnetic to the ferromagnetic state at .apprx.100 K was reflected in the sudden increase in the coercivity at .apprx.100 K and magnetic splitting of the Mossbauer spectrum. Intrinsic coercivity of the ribbon melt-spun at 30 m/s of alloy Sm60Fe30Al10 achieved a value as high as 3300 kA/m at 5 K.
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 45 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:161103 HCAPLUS Full-text
DOCUMENT NUMBER: 134:289219
TITLE: A magnetic and Mossbauer study of melt-spun Nd60Fe30Al10
AUTHOR(S): Wang, L.; Ding, J.; Li, Y.; Feng, Y. P.; Wang, X. Z.; Phuc, N. X.; Dan, N. H.
CORPORATE SOURCE: Department of Physics, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Journal of Magnetism and Magnetic Materials (2001), 224(2), 143-152
CODEN: JMMMDC; ISSN: 0304-8853
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Nd60Fe30Al10 alloys were rapidly quenched by the melt-spinning technique with different wheel surface speeds ranging from 5-30 m/s. The microstructure and the magnetic properties were strongly dependent on the quenching rate. A high quenching rate led to an amorphous structure with a low coercivity at room temperature, while a mixture of amorphous and crystalline phases was found after melt-spinning at 5 m/s, which exhibited hard magnetic properties at room temperature For both the ribbons melt-spun at 5 and 30 m/s, resp., coercivity increased with decreasing temperature and reached a maximum at .apprx.50 K. Maximum magnetization at 10 T increased dramatically at low temperature The magnetic study showed that the presence of crystalline Nd was responsible for the increase of magnetization and the decrease of coercivity, as Nd became magnetically ordered at low temps. The Moessbauer study showed that the magnetic microstructures of melt-spun ribbons were not uniform, as the spectra needed to be fitted by magnetic and nonmagnetic components.
REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 46 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:147103 HCAPLUS Full-text
DOCUMENT NUMBER: 134:375110
TITLE: Hard magnetic properties and magnetocaloric effect in amorphous NdFeAl ribbons
AUTHOR(S): Si, L.; Ding, J.; Wang, L.; Li, Y.; Tan, H.; Yao, B.
CORPORATE SOURCE: Department of Materials Science, National University of Singapore, Singapore, 119260, Singapore

SOURCE: Journal of Alloys and Compounds (2001), 316(1-2), 260-263
CODEN: JALCEU; ISSN: 0925-8388
PUBLISHER: Elsevier Science S.A.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Structure and magnetic properties of amorphous melt-spun NdFeAl and subsequently crystallized ribbons were studied. An amorphous phase was formed after quenching by melt spinning with a Cu wheel surface speed of 30 m/s. This amorphous phase exhibited hard magnetic behavior at low temps. with a Curie temperature of 110 K and a coercivity of 1526 kA/m at 4.2 K A hexagonal phase with the lattice parameters a = 5.5111 A and c 8.7448 A was formed in the NdFeAl ribbon after annealing above the crystallization temperature The magnetic entropy change was calculated directly from isothermal magnetic measurements. The results showed that the amorphous sample had a relatively high magnetocaloric effect, indicating that the amorphous alloy can be considered as a candidate for magnetic refrigeration applications.
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 47 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:146928 HCAPLUS Full-text
DOCUMENT NUMBER: 134:254450
TITLE: Bound-state Ni species - a superior form in Ni-based catalyst for CH4/CO2 reforming
AUTHOR(S): Xu, Z.; Li, Y.; Zhang, J.; Chang, L.; Zhou, R.; Duan, Z.
CORPORATE SOURCE: Department of Chemical Engineering, Tsinghua University, Beijing, 100084, Peop. Rep. China
SOURCE: Applied Catalysis, A: General (2001), 210(1,2), 45-53
CODEN: ACAGE4; ISSN: 0926-860X
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The effects of nickel loading, calcination temperature, support, and basic additives on Ni-based catalyst structure and reactivity for CH4 reforming with CO2 were investigated. The results show that the structure of the nickel active phase strongly depends on the interactions of the metal and the support, which are related to the support properties, the additives and the preparation conditions. "Free" Ni species can be formed when the interaction is weak and their mobility makes them easily deactivated by coking and sintering. The effect of strong metal-support interaction (SMSI effect) is different for various supports. The formation of solid solution of Ni-Mg-O2 and the blocking of TiOx by the partially reduced TiO2 can both decrease the availability of Ni active sites in Ni/MgO and Ni/TiO2. The spinel NiAl2O4 formed in Ni/γ-Al2O3 might be responsible for its high activity and resistance to coking and sintering because it can produce a highly dispersed active phase and a large active surface area as bound-state Ni species when the catalyst is prepared at high calcined temps. or with low nickel loading. The addition of La2O3 or MgO as alumina modifiers can also be beneficial for the performance of the Ni/γ-Al2O3 catalyst.
REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 48 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:44365 HCAPLUS Full-text
DOCUMENT NUMBER: 134:156709
TITLE: Microstructure and soft magnetic properties of

nanocrystalline Fe-Si powders
AUTHOR(S): Ding, J.; Li, Y.; Chen, L. F.; Deng, C. R.; Shi, Y.; Chow, Y. S.; Gang, T. B.
CORPORATE SOURCE: Department of Materials Science, National University of Singapore, Singapore, Singapore
SOURCE: Journal of Alloys and Compounds (2001), 314(1-2), 262-267
CODEN: JALCEU; ISSN: 0925-8388
PUBLISHER: Elsevier Science S.A.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Fine Fe-Si powders with a nanocryst. structure were prepared by mech. alloying (high-energy ball milling) and subsequent heat treatment (to optimize their magnetic properties). Good soft magnetic properties were obtained in mech. alloyed Fe-Si powders. The Fe75Si25 powder annealed at 450° possessed a magnetization of 149 Am2/kg and a coercivity of 0.2 kA/m. The coercivity model for soft magnetic nanocryst. materials could be well applied to the Fe-Si powders. The mech. alloyed Fe-Si possessed significantly higher magnetic permeability than that of com. available Fe-Si powder. The permeability of the mech. alloyed Fe75Si25 powder was comparable with that of mech. alloyed pure Fe powder. Considering of lower d. and better chemical stability of Fe-Si, the mech. alloyed Fe-Si may be interesting for soft magnetic application including magnetic shielding and electromagnetic noise suppression.
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 49 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:2585 HCAPLUS Full-text
DOCUMENT NUMBER: 134:140711
TITLE: Cluster-glass behaviour of the substituted molybdenum ferrite. A magnetic and Mossbauer study
AUTHOR(S): Wang, L.; Ding, J.; Roy, A.; Ghose, J.; Li, Y.; Feng, Y. P.
CORPORATE SOURCE: Physics Department, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Journal of Physics: Condensed Matter (2000), 12(48), 9963-9972
CODEN: JCOMEL; ISSN: 0953-8984
PUBLISHER: Institute of Physics Publishing
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Magnetic and Mossbauer spectroscopy studies were carried out to investigate the ferrite Fe2Mo0.6Ti0.4O4. Zero-field-cooled (ZFC) and field-cooled (FC) data, hysteresis loops, coercivity measurements, Mossbauer anal. and magnetic relaxation measurements show the presence of a cluster-glass behavior. All of the results indicate that the ferrite may consist of 2 components: ferrimagnetic clusters and an antiferromagnetic matrix. The ferrimagnetic cluster may be Mo-rich and has a compensation temperature, and its Curie temperature is higher than that of the antiferromagnetic matrix.
REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 50 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:872649 HCAPLUS Full-text
DOCUMENT NUMBER: 134:216798
TITLE: Novel antitumor artemisinin derivatives targeting G1 phase of the cell cycle
AUTHOR(S): Li, Y.; Shan, F.; Wu, J.-M.; Wu, G.-S.; Ding, J.;

Xiao, D.; Yang, W.-Y.; Atassi, G.; Leonce, S.; Caignard, D.-H.; Renard, P.
CORPORATE SOURCE: Shanghai Institutes for Biological Sciences, Shanghai Institute of Materia Medica, Department of Synthetic Chemistry, Chinese Academy of Sciences, Shanghai, 200031, Peop. Rep. China
SOURCE: Bioorganic & Medicinal Chemistry Letters (2000), Volume Date 2001, 11(1), 5-8
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Modification of artemisinin structure led us to the discovery of a novel class of antitumor compds. These artemisinin derivs. containing cyano and aryl groups showed potent antiproliferative effect in vitro against P388 and A549 cells. This activity was reflected in P388 murine leukemia by an accumulation of cells in G1 phase, and induction of apoptosis.
REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 51 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:719663 HCAPLUS Full-text
DOCUMENT NUMBER: 134:179727
TITLE: The design, synthesis and characterization of polyurethane with super macromolecular size
AUTHOR(S): Li, F.; Zuo, J.; Song, D.; Li, Y.; Ding, L.; An, Y.; Wei, P.; Ma, J.-B.; He, B.
CORPORATE SOURCE: Department of Chemistry, Nankai University, Tianjin, 300071, Peop. Rep. China
SOURCE: European Polymer Journal (2000), Volume Date 2001, 37(1), 193-199
CODEN: EUPJAG; ISSN: 0014-3057
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In the synthesis of polyurethane (PU), considering that -NCO at the chain end in the prepolymer can react with the hydrogen in -NHCOO-, a reaction system with a crosslinking tendency is designed. Due to the crosslinking tendency, mol. weight will increase without limit, while the intramol. reaction present in the system consumes -NCO groups and then the crosslinking reaction can be prevented. Thus, PU with extremely complex structures and super macromol. size is synthesized. When the mol. weight of the soft segment is 900, and the amount of chain extender is reduced by 40%, the mol. size is 750 nm. Compared with polystyrene, which, with a mol. weight of 2 × 106, has a mol. size only 96 nm, it is undoubtedly a super macromol. Elongation and tensile strength at break of this PU sample are 1683% and 28,000 N/cm2, resp. When the mol. weight of the soft segment is 1684, elongation and tensile strength at break are 2300% and 51,000 N/cm2, resp.
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 52 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:413562 HCAPLUS Full-text
DOCUMENT NUMBER: 133:171286
TITLE: Effect of boron addition to the hard magnetic bulk Nd60Fe30Al10 amorphous alloy
AUTHOR(S): Kong, H. Z.; Li, Y.; Ding, J.
CORPORATE SOURCE: Department of Materials Science, National University

of Singapore, Singapore, 119260, Singapore
SOURCE: Journal of Magnetism and Magnetic Materials (2000), 217(1-3), 65-73
CODEN: JMMMDC; ISSN: 0304-8853
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A detailed study of the effect of boron addition to crystallinity, magnetic properties and thermal properties was carried out for alloys Nd60-xFe30Al10Bx with x = 0, 1, 3 and 5 produced by copper mold chill casting and melt-spinning. The cast rods of alloys Nd60-xFe30Al10Bx were largely amorphous. Remanence up to 0.154 T and coercivity up to 355 kA/m were observed, which were higher than those of the bulk amorphous Nd60Fe30Al10 rod of the same diameter A step in hysteresis loop was observed for the hard magnetic cast rod and ribbon melt-spun at a low speed of 5 m/s of the alloys with boron addition Consistent increase in the amplitude of the step and magnetic field (H) at which the step was observed as the boron content increased. A single magnetic phase with low coercivity was observed for fully amorphous ribbon melt-spun at high speed of 30 m/s. Full crystallization due to heat treatment resulted in transition of hard magnetic amorphous phase of Nd55Fe30Al10B5 cast rod to paramagnetic crystalline phases. TEM results of the as-cast rods illustrated the existence of numerous minute Nd-crystallites in amorphous matrix.
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 53 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:369004 HCAPLUS Full-text
DOCUMENT NUMBER: 133:98370
TITLE: A superferromagnetic approach for rapidly quenched Y60Fe30Al10 alloys
AUTHOR(S): Wang, L.; Ding, J.; Li, Y.; Kong, H. Z.; Feng, Y. P.; Wang, X. Z.
CORPORATE SOURCE: Department of Physics, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Journal of Physics: Condensed Matter (2000), 12(18), 4253-4262
CODEN: JCOMEL; ISSN: 0953-8984
PUBLISHER: Institute of Physics Publishing
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The structural and magnetic properties of Y60Fe30Al10 melt-spun ribbons were studied in this work. The exptl. results indicate that Y60Fe30Al10 melt-spun ribbons are not homogeneous, i.e. Fe-rich clusters are present. The magnetization curves for the ribbons melt spun at 5 and 30 m s-1 were analyzed with a model based on superferromagnetism. This superferromagnetic model can be well applied to the ribbon melt spun at 30 m s-1. The Curie transition temperature TCsystem was confirmed by the plot of inverse susceptibility vs. temperature For the ribbon melt spun at 5 m s-1, inter-cluster interactions were much stronger and the microstructure was not uniform. Zero-field cooling and field cooling curves showed the cluster behavior clearly. The Mossbauer results supported the existence of Fe-rich clusters and interactions between clusters.
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 54 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:98714 HCAPLUS Full-text

DOCUMENT NUMBER: 132:245149
TITLE: The exchange-spring magnet behavior in melt-spun Nd-Fe-B ribbons
AUTHOR(S): Lee, K. Y.; Ding, J.; Li, Y.; Yong, P. T.
CORPORATE SOURCE: Department of Materials Science, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Brazilian Journal of Materials Science and Engineering (1999), 2(1), 5-17
CODEN: BJMEFH; ISSN: 1415-7004
PUBLISHER: Universidade Luterana do Brasil
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Demagnetization processes were studied in nanocryst. Nd-Fe-B ribbons of the three compns.: Nd10Fe85B5, Nd12Fe82B6 and Nd15Fe77B8. TEM bright field images showed that the microstructures of all the optimally annealed ribbons were similar and grain size at 20-40 nm was obtained. Remanence enhancement was observed in the Nd10Fe85B5 nanocomposite consisting of soft (α-Fe) and hard (Nd2Fe14B) phases and in the single hard phase Nd12Fe82B6. In Nd15Fe77B8 ribbon, coercivity ≤1520 kA/m was measured, but no significant remanence enhancement was observed, due to the presence of .apprx.11 volume% of nonmagnetic phase (Nd1.1Fe4B4 and Nd-rich phase). The remanence enhanced single-phase Nd12Fe82B6 did not show any exchange-spring behavior. All samples of Nd10Fe85B5 exhibited single-phase behavior. This phenomenon was also observed in the sample annealed at 1000° where grain size as big as 1000 nm was measured. This single-phase behavior was due to the synchronization of the irreversible demagnetization processes of the soft and hard phases. No significant exchange-spring behavior was observed in Nd10Fe85B5 ribbons, except the sample annealed at 1000° where grain sizes were considerably larger than the domain wall thickness of Fe.

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 55 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:27201 HCAPLUS Full-text
DOCUMENT NUMBER: 132:174689
TITLE: A structural, magnetic and Mossbauer investigation on melt-spun Nd0.33(Fe0.75Al0.25)0.67 ribbons
AUTHOR(S): Si, L.; Ding, J.; Li, Y.; Wang, L.; Wang, X. Z.
CORPORATE SOURCE: Department of Materials Science, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Journal of Physics: Condensed Matter (1999), 11(50), 10557-10566
CODEN: JCOMEL; ISSN: 0953-8984
PUBLISHER: Institute of Physics Publishing
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A tetragonal phase with a = 9.778 and c = 11.516 Å is formed in the Nd0.33(Fe0.75Al0.25)0.67 alloy after melt spinning and short period annealing at 873 K. The tetragonal phase is probably metastable and transforms slowly into the stable δ-Nd3Fe7-xAlx phase during heat treatment at 873 K. This phase is antiferromagnetic with a Neel temperature of 260 ± 5 K. Metamagnetism is observed at a temperature of 140 K or below. The magnetic properties were characterized using a vibrating sample magnetometer and Mossbauer spectroscopy. Magnetoresistivity of ≤7.2% is accompanied by metamagnetism. At room temperature, 1% of the magnetoresistivity is measured in the paramagnetic state.

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 56 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:720823 HCAPLUS Full-text
DOCUMENT NUMBER: 132:86887
TITLE: Observation of continuous and step-like thermomagnetization in Nd-Fe-Al amorphous alloys
AUTHOR(S): Phuc, N. X.; Dan, N. H.; Ding, J.; Li, Y.; Wang, X. Z.
CORPORATE SOURCE: Institute of Materials Science, Hanoi, Vietnam
SOURCE: IEEE Transactions on Magnetics (1999), 35(5, Pt. 2), 3460-3462
CODEN: IEMGAQ; ISSN: 0018-9464
PUBLISHER: Institute of Electrical and Electronics Engineers
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Zero field cooled and field cooled thermomagnetizations of melt-spun and chill-cast amorphous Nd60Fe30Al10 alloys were studied using regular and nonregular temperature cyclings. The regular temperature treatments revealed bifurcation of the two MZFC and MFC curves and a cusp-like behavior of the former appearing at temperature Tp and Tb, resp. These two temps. show up to scale well with external magnetic field. The magnetization of samples responds sensitively to any sudden change of the temperature and field variation.
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 57 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:682997 HCAPLUS Full-text
DOCUMENT NUMBER: 132:58086
TITLE: Anomalous magnetic viscosity in bulk-amorphous materials
AUTHOR(S): Wang, L.; Ding, J.; Li, Y.; Feng, Y. P.; Wang, X. Z.
CORPORATE SOURCE: Department of Physics, National University of Singapore, Singapore, Singapore
SOURCE: Journal of Magnetism and Magnetic Materials (1999), 206(3), 127-134
CODEN: JMMMDC; ISSN: 0304-8853
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The demagnetization processes and the magnetic viscosity were studied on a bulk-amorphous Nd60Fe30Al10 rod at room temperature Many unique magnetic properties were found in this novel hard magnetic material. A clear hysteresis was present on the minor loops, though the total and irreversible susceptibilities exhibited single-phase magnet behavior. A significant magnetic viscosity was evident at pos. fields. A large magnetic viscosity was found at neg. fields close to the coercivity. The time-dependent magnetization curves were not logarithm-linear and could be well fitted with a logarithm power series with N = 6. The fluctuation field was strongly dependent on the magnetic field. The activation volume is 15-60 × 10-18 cm3. The magnetic viscosity on the minor loops was measured. A nonmonotonic behavior was found.
REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 58 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:615006 HCAPLUS Full-text
DOCUMENT NUMBER: 131:294572

TITLE: Structure and magnetic characterization of amorphous and crystalline Nd-Fe-Al alloys
AUTHOR(S): Wang, X. Z.; Li, Y.; Ding, J.; Si, L.; Kong, H. Z.
CORPORATE SOURCE: Department of Materials Science, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Journal of Alloys and Compounds (1999), 290(1-2), 209-215
CODEN: JALCEU; ISSN: 0925-8388
PUBLISHER: Elsevier Science S.A.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Glass formation was studied in Nd60Fe30Al10 alloy produced by melt-spinning, water quenching and copper mold chill casting. Partially amorphous alloys were obtained by melt-spinning at low wheel speeds of 5 to 15 m/s and by water quenching of a 1-mm diameter rod, while fully amorphous alloys were obtained by melt-spinning at higher wheel speeds of 20 and 30 m/s and chill casting of a 1-mm diameter rod, A high coercivity was observed in the partially amorphous ribbon melt-spun at 5 m/s and water quenched rod, and in the fully amorphous chill cast rod, while low values of coercivity were obtained in fully amorphous ribbons melt-spun at high speeds of 20 and 30 m/s. Crystallization of water quenched and chill cast samples after heat treatment at high temperature resulted in a substantial reduction of the high coercivity. Results of x-ray diffraction indicate that formation of Nd and a ternary Fe-Nd-Al phase with an unknown crystal structure were present after crystallization TEM results and a magnetic study of the heat treated samples indicate that as long as there is an amorphous phase produced by low cooling rate, the high coercivity remains. The high coercivity of bulk amorphous samples is discussed. The unknown ternary Fe-Nd-Al phase is antiferromagnetic with a Neel temperature at .apprx.260 K.
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 59 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:576383 HCAPLUS Full-text
DOCUMENT NUMBER: 131:316143
TITLE: Magnetoresistivity and metamagnetism of the Nd33Fe50Al17 alloy
AUTHOR(S): Ding, J.; Si, L.; Li, Y.; Wang, X. Z.
CORPORATE SOURCE: Department of Materials Science, National University of Singapore, 119260, Singapore
SOURCE: Applied Physics Letters (1999), 75(12), 1763-1765
CODEN: APPLAB; ISSN: 0003-6951
PUBLISHER: American Institute of Physics
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A ternary phase was identified in the rare-earth transition metal Nd-Fe-Al system. This phase has a composition close to Nd5(Fe3Al)12 and is antiferromagnetic with a Neel temperature of .apprx.260 K; A clear step appears in magnetization curves of the isotropic ribbon at temps. <140 K, indicating metamagnetism. Magnetoresistivity (MR) was observed in this compound MR increases with decreasing temperature and is 7.2% at 4.2 K; This compound exhibits MR of 1% in the paramagnetic state at room temperature
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 60 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:522214 HCAPLUS Full-text
DOCUMENT NUMBER: 131:193068

TITLE: Magnetic properties of rapidly quenched RE-Fe-Al alloys with RE = Nd and Y
AUTHOR(S): Ding, J.; Li, Y.; Wang, X. Z.
CORPORATE SOURCE: Dep. Materials Science, National Univ. Singapore, Singapore, 119260, Singapore
SOURCE: Materials Science Forum (1999), 312-314(Metastable, Mechanically Alloyed and Nanocrystalline Materials), 539-544
CODEN: MSFOEP; ISSN: 0255-5476
PUBLISHER: Trans Tech Publications Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB RE-Fe-Al alloys with RE = Nd and Y were prepared by different techniques including melt-spinning, water-quenching, and suction casting. High coercivities were measured in Nd60Fe30Al10 alloys after quenching at relatively low quenching rates. Ribbons melt-spun at higher speeds had low values of coercivity, probably due to structural nonuniformity. Y-Fe-Al ribbons were studied with a vibrating sample magnetometer and a Mossbauer spectrometer. Mossbauer parameters changed with varied wheel speeds of melt-spinning, indicating of change in microstructure.
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 61 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:286556 HCAPLUS Full-text
DOCUMENT NUMBER: 130:360373
TITLE: Structure and magnetic properties of Y60Fe30Al10 melt-spun ribbons
AUTHOR(S): Li, Y.; Ding, J.; Wang, X. Z.
CORPORATE SOURCE: Department Materials Science, National Univ. Singapore, Singapore, 119260, Singapore
SOURCE: Physica Status Solidi A: Applied Research (1999), 172(2), 461-468
CODEN: PSSABA; ISSN: 0031-8965
PUBLISHER: Wiley-VCH Verlag Berlin GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The structural and magnetic properties of Y60Fe30Al10 melt-spun ribbons were studied. Fully amorphous alloys were obtained after melt-spinning at higher speeds (>15 m/s). Ribbons melt-spun at lower speeds consisted of a mixture of amorphous and crystalline Y. The Y crystallites in the ribbon melt-spun at 5 m/s possessed a strong crystallog. texture. The crystallization of the amorphous phase gives a mixture of crystalline Y and a ternary Y-Fe-Al phase. By Mossbauer study, the quadrupole splitting and isomer shift of the amorphous phase increased with decreasing melt-spinning speed, indicating a possible change in microstructure. The magnetization curves of Y60Fe30Al10 ribbons could be described with superparamagnetism, suggesting that Fe-rich clusters might be present in the amorphous phase.
REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 62 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:227227 HCAPLUS Full-text
DOCUMENT NUMBER: 130:341436
TITLE: The coercivity of rapidly quenched Nd60Fe30Al10 alloys
AUTHOR(S): Ding, J.; Li, Y.; Wang, X. Z.
CORPORATE SOURCE: Department of Materials Science, National University of Singapore, Singapore, 119260, Singapore

SOURCE: Journal of Physics D: Applied Physics (1999), 32(6), 713-716
CODEN: JPAPBE; ISSN: 0022-3727
PUBLISHER: Institute of Physics Publishing
DOCUMENT TYPE: Journal
LANGUAGE: English
AB High coercivities were obtained in partly amorphous Nd60Fe30Al10 ribbons that had been melt spun at 5 m/s and in a water-quenched rod, whereas low coercivities were obtained in fully amorphous ribbons that had been melt spun at high wheel speeds (>20 m/s). High coercivities were measured for the water-quenched and the chill-cast rods. This result indicates that the coercivity of the Nd-Fe-Al alloy is strongly dependent on the quenching rate. The magnetic properties of the water-quenched rod were studied as functions of temperature The coercivity increased from 318 kA m-1 at room temperature to 2085 kA m-1 at liquid nitrogen temperature The ribbon that had been melt spun at 5 m/s possessed a coercivity of 3266 kA m-1 (4.1 T) at 78 K. Such high coercivities were attributed to a large local magnetic anisotropy which is probably produced by Nd atoms.
REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 63 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:728006 HCAPLUS Full-text
DOCUMENT NUMBER: 130:9800
TITLE: A comparative study of melt-spun ribbons of Nd12Fe82B6 and Nd15Fe77B8
AUTHOR(S): Ding, J.; Li, Y.; Yong, P. T.
CORPORATE SOURCE: Department of Materials Science, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Journal of Physics D: Applied Physics (1998), 31(20), 2745-2750
CODEN: JPAPBE; ISSN: 0022-3727
PUBLISHER: Institute of Physics Publishing
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Isotropic single-phase materials can exhibit remanence enhancement due to exchange coupling between spins in grain boundary areas. Magnetic materials with remanence enhancement are required to have nanocryst. structures with grain sizes comparable to the domain-wall thickness. The presence of nonmagnetic phases may result in de-coupling of magnetic grains, therefore increasing coercivity but a decrease in remanence. The demagnetization processes of single-phase materials with enhanced remanence are different from those of nanocomposites consisting of hard and soft phases, in that no exchange-spring magnet behavior was observed for single-phase ribbons of Nd2Fe14B with a nanocryst. structure. A neg. deviation of the demagnetization remanence from the Wohlfarth model is due to exchange coupling.
REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 64 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:706887 HCAPLUS Full-text
DOCUMENT NUMBER: 130:9811
TITLE: A magnetic study of melt-spun Nd10Fe85B5 ribbons
AUTHOR(S): Ding, J.; Li, Y.; Lee, K. Y.
CORPORATE SOURCE: Department of Materials Science, National University of Singapore, 119260, Singapore
SOURCE: Journal of Physics: Condensed Matter (1998), 10(40), 9081-9092

CODEN: JCOMEL; ISSN: 0953-8984
PUBLISHER: Institute of Physics Publishing
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The structural and magnetic properties of Nd10Fe85B5 ribbons produced by melt-spinning and subsequent annealing were studied. A mixture of Nd2Fe14B and 13 volume% of Fe was found in the ribbon melt-spun at 30 m s-1 and in samples subsequently annealed. 57Fe-Moessbauer spectroscopy was used for phase anal. and for study of remanence enhancement. Remanence enhancement was found in ribbons after optimized treatment, after which ribbons consisted of 20-30 nm grains of Nd2Fe14B and Fe phases. The remanence enhancement effect was attributed to both the soft and hard phases. Demagnetization processes were studied. All samples exhibited single-phase behavior, i.e. irreversible demagnetization processes of the hard and soft phases were synchronous even for samples consisting of sub-micron grains. No significant evidence of exchange-spring magnet behavior was found for samples after optimum treatment. The exchange-spring magnet behavior was observed in samples annealed at higher temps., at which the mean grain sizes were significantly larger than the domain wall thickness of Fe. The magnetic properties of Nd10Fe85B5 ribbons in this work were associated with separation of soft Fe grains by Nd2Fe14B grains because of a low fraction of Fe.
REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 65 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:475486 HCAPLUS Full-text
DOCUMENT NUMBER: 129:210710
TITLE: Unusual magnetization anisotropy in amorphous Nd-Fe-Al ribbons
AUTHOR(S): Li, Y.; Ding, J.; Ng, S. C.; Wang, X. Z.
CORPORATE SOURCE: Department of Materials Science, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Journal of Magnetism and Magnetic Materials (1998), 187(3), L273-L277
CODEN: JMMMDC; ISSN: 0304-8853
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Nd60Fe30Al10 ribbons was prepared by chill-block melt-spinning with different wheel speeds from 5 to 30 m/s. Fully amorphous ribbons were obtained at wheel speeds of 25 and 30 m/s. These ribbons exhibited an unusually large anisotropy in magnetization. The effect of the magnetic anisotropy decreased with decreasing wheel speed, and nearly disappeared at the wheel speed of 5 m/s, at which the ribbon consisted of a mixture of a more stable Fe-rich amorphous phase and a crystalline Nd phase with a strong crystallog. texture.
REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L135 ANSWER 66 OF 66 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:698353 HCAPLUS Full-text
DOCUMENT NUMBER: 128:30819
TITLE: Molecular cloning, sequencing, functional analysis and expression in E. coli of major core protein gene (S3) of rice dwarf virus Chinese isolate
AUTHOR(S): Zhang, F.; Li, Y.; Liu, Y.; Chen, Z.
CORPORATE SOURCE: National Laboratory of Protein Engineering and Plant Genetic Engineering, College of Life Sciences, Peking University, Beijing, 100871, Peop. Rep. China

SOURCE: Acta Virologica (English Edition) (1997), 41(3), 161-168
CODEN: AVIRA2; ISSN: 0001-723X
PUBLISHER: Slovak Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The complete nucleotide sequence of major core protein gene (segment S3) of rice dwarf virus (RDV) Chinese isolate was determined after cDNA cloning from the viral genomic RNA. Sequence anal. showed that the cloned fragment is 3195 bp in length and contains a single open reading frame (ORF), encoding the major core protein (P3) which Mr of 114 K. The nucleotide and deduced amino acid sequences of S3 of this isolate share significant homol. (94.1% and 97%, resp.) with those of S3 of the Japanese isolate. At the amino acid level, P3 of RDV Chinese isolate shares significant homol. with P3 of rice gall dwarf virus (RGDV), significant regional homol. with the rotavirus VP4 protein which forms spikes on the virus particles and has been identified as a protein involved in the activation of the rotavirus penetration, and homol. with spheroidin of amsacta entomopoxvirus (SPH), which is the major protein of the occlusion body, with cIp-like ATP-dependent protease binding subunit and with ATP-dependent protease ATP-binding subunit. Amino acid sequence anal. also showed that P3 contains RNA-dependent RNA polymerase (RDRP) motif-like elements such as DXXXD, SGXXXXXXN, GDD and ENXXXY. These results may suggest that P3 is a multifunctional protein which plays very important roles in the virus structure formation, virus replication and penetration processes. The full length cDNA sequence of RDV S3 and a partial one which covers nt 1004-3195 were cloned into bacterial expression vector pTrcHisB for expression. The full length cDNA sequence failed to be expressed in E. coli, but the partial sequence was successfully expressed there as confirmed by the Western blot anal. Further anal. of RDV P3 is under way.

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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